



FINAL PHASE V COMPLETION REPORT

Former Pechiney Cast Plate, Inc. Facility

3200 Fruitland Avenue

Vernon, California

Prepared for:

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Project No. 0106270030





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This report was prepared by the staff of AMEC Environment & Infrastructure, Inc. under the supervision of the Engineer and Geologist whose signatures appear hereon.

The findings, recommendations, specifications, or professional opinions are presented within the limits described by the client, in accordance with generally accepted professional engineering and geologic practice. No warranty is expressed or implied.

A handwritten signature in black ink, appearing to read "Linda Conlan", written over a horizontal line.

Linda Conlan, PG
Principal Geologist

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Principal Engineer

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ACRONYMS

ACM	Asbestos containing materials
AIS	American Integrated Services, Inc.
AMEC	AMEC Environment & Infrastructure, Inc.
Aurora	Aurora Industrial Hygiene, Inc.
COC	Chemical of Concern
DTSC	California Department of Toxic Substances Control
FS	Feasibility Study (AMEC, 2012a)
HHRA	Human Health Risk Assessment
mg/kg	milligrams per kilogram
NORM	Natural Occurring Radioactive Material
µg/100 cm ²	micrograms per 100 centimeters squared
MSL	mean sea elevation
OSI	Occupational Services, Inc.
Pechiney	Pechiney Cast Plate, Inc.
PAH	polycyclic aromatic hydrocarbon
PCBs	polychlorinated biphenyls
Plan	Revised Below Grade Demolition Plan (AMEC, 2012d)
RAO	remedial action objective
RAP	Remedial Action Plan (AMEC, 2012c)
Report	Phase V Area Completion Report
SAP	Sampling and Analysis Plan (AMEC, 2010)
site	Former Pechiney Cast Plate, Inc. Facility, located at 3200 Fruitland Avenue, Vernon, California
SVE	soil vapor extraction
TPH	total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
US EPA	United States Environmental Protection Agency, Region IX
VOC	volatile organic compound

FINAL PHASE V AREA COMPLETION REPORT

Former Pechiney Cast Plate, Inc. Facility
Vernon, California

1.0 INTRODUCTION AND BACKGROUND

On behalf of Pechiney Cast Plate, Inc. (Pechiney), AMEC Environment & Infrastructure, Inc. (AMEC), prepared this report (Report) to document the completion of the below grade demolition and soil removal work for the Phase V Area (Parcel 6) of the Pechiney Facility, located at 3200 Fruitland Avenue, in Vernon, California (site; Figure 1). The Phase V Area is shown on Figure 2. This final Report is being submitted to address comments received from the California Department of Toxic Substances Control (DTSC) in its letters to Pechiney dated November 24, 2014, December 19, 2014, and March 6, 2015. This final Report also documents response actions taken by the former Pechiney Facility to perform below grade demolition of the facility as described in the Remedial Action Plan (RAP; AMEC, 2012c), and to address impacted soil encountered during the below grade demolition work. These actions, including verification sampling and analysis, and waste removal and off-site disposal, were conducted as stated herein this Report and in conformance with the Revised Below Grade Demolition Plan (Plan) (AMEC, 2012d). The Plan was approved by the City of Vernon Community Services. The RAP was approved by the California Department of Toxic Substances Control (DTSC) and the polychlorinated biphenyl (PCB) elements were conditionally approved by United States Environmental Protection Agency, Region IX (US EPA).

In order to expedite the review process for this project, the site has been divided into four areas, and four completion reports, one for each area, has been submitted to the DTSC, the US EPA, and the City of Vernon Community Services. The completion report for the Phase I Area was previously submitted on June 6, 2014.

A Feasibility Study (FS; AMEC, 2012a) was prepared on behalf of Pechiney to evaluate potential human health risks and potential remedial technologies that were used to provide recommendations for the proposed, preferred remedy for impacted soil and soil vapor in the vadose zone and impacted concrete at the site. The FS included a detailed summary of the historical operations, previous assessment results (concrete, soil and groundwater, etc.), areas remediated by others, potential constituents of concern (COCs), a baseline Human Health Risk Assessment (HHRA), risk-based remediation goals for COCs, and remedial alternatives to address COCs exceeding risk-based remediation goals. As summarized in the

FS, the chemical of concern (COCs) for the site included PCBs (concrete and soil); volatile organic compounds (VOCs; soil, soil vapor and groundwater) in the Phase I Area; and Stoddard solvent (soil and soil vapor) and metals in the Phase III/IV Area. Potential COCs in the Phase V Area included metals (mainly lead), PCBs and total petroleum hydrocarbons (TPH). Other potential constituents, such as hexavalent chromium, polycyclic aromatic hydrocarbon (PAHs), and dioxins/furans were not considered potential COCs for the site for the following reasons:

- Hexavalent chromium - Hexavalent chromium was not identified as a COC associated with the former aluminum manufacturing operations, nor was it detected in soil in the area of the cooling tower in the Phase III Area of site. Processes that are typically associated with hexavalent chromium, such as chrome plating, were not conducted at the site. In addition, it would not be considered a by-product of the aluminum manufacturing processes. Although hexavalent chromium was not identified as a COC, the site-specific risk-based screening level for total chromium was based on a 1:6 ratio of hexavalent chromium to total chromium in the absence of speciation for hexavalent chromium (as recommended by US EPA at that time).
- PAHs or dioxins/furans - The Swindell Pit Furnace that was located in the Phase I Area (Figure 2) or other furnaces at the site were used to melt metals, primarily aluminum and not organics. The fuels that many have been used in this equipment may have been fuel oil or natural gas. In this type of furnace, partial combustion of organic matter would not occur. The melting point for aluminum is 1200 degrees Fahrenheit (°F), which is well above the temperature that typically results in the formation of PAHs or dioxins/furans. These compounds form at temperatures ranging between 550 °F or 800 °F.

As summarized in the FS, a soil removal was conducted by others in the Phase V Area in the area of former Building 135 for lead. The area where the soil removal was conducted for lead is shown on Figure 3, and details and sample results are included in the FS (2012a).

Based on the FS, the RAP (AMEC, 2012c) was prepared to provide the details and procedures to be used for remediating PCB-impacted concrete during demolition of below-grade features present at the site and remediating impacted soil during below-grade demolition. On-site areas where COCs were detected above the risk-based remediation goals were included in the RAP. The RAP was approved by DTSC on June 28, 2012, and pursuant to the Toxic Substances Control Act (TSCA), the PCB elements of the RAP were conditionally approved by US EPA in July 2010 and 2012.

The soil removal work in the Phase V Area (Figure 2) was conducted in accordance with the RAP using site-specific background concentrations and risk-based screening levels (RBSLs) for metals, PCBs and TPH presented in the approved FS. The RAP included a summary of the site background; site history; regional, local, and site geology and hydrogeology; results of

previous investigations and constituents of potential concern; results of a soil screening evaluation; remedial action objectives (RAOs); criteria used to establish these objectives; site-specific RBSLs for soil; scope of the remedial action; and protocols for verification sampling to be conducted after completing demolition and remedial activities.

The Plan (AMEC, 2012d) was submitted to the City of Vernon Community Services on November 30, 2011 and implementation of the Plan was approved by Community Services with the issuance of the permits for the below grade demolition work (permit # B00-088-125) and site grading (permit # B00-088-126) on October 22, 2012 (re-issued August 22, 2013 and November 5, 2012, respectively) to American Integrated Services, Inc. (AIS) of Wilmington, California, the contractor selected by Pechiney to perform the demolition work. The below grade demolition work in the Phase V Area was conducted as described in the Plan. As noted in the Plan and RAP, soil removal was planned only for areas where metals or PCBs were detected in shallow soil at concentrations exceeding site-specific risk-based remediation goals for future commercial/industrial site use pursuant to the FS and RAP.

The below grade demolition and soil removal work (related to metals and TPH) was conducted by AIS under contract to Pechiney. AMEC observed AIS' work and conducted the soil verification sampling and perimeter air monitoring with the assistance of Aurora Industrial Hygiene (Aurora).

2.0 SCOPE OF WORK AND REMEDIATION GOALS

As described in the RAP and Plan, the scope of work for concrete and soil removals included the following work.

- Site mobilization, preparation, and below grade demolition permitting.
- If encountered, demarcation, removal, and offsite disposal of PCB-impacted concrete with PCB concentrations greater than 1 milligram per kilogram (mg/kg).
- If encountered, demarcation, excavation, verification soil sampling, and offsite disposal of PCB-impacted soil using in situ data.
- Testing and removal of below grade structures within the upper 10 feet relative to the surface elevation in the area of the structure (within the Phase V Area). The surface elevation (native grade) for this area ranged from 177 to 179 feet mean sea level [MSL] on the west side [Note: the surface elevation/native grade of the Phase V Area is lower than the remainder of the site]. In situ testing of concrete structures was conducted to select the disposition of the concrete and to determine the need to collect soil samples below the structure.
- Collection of verification soil samples below PCB-impacted concrete slabs and structures.

- Identification, verification sampling, handling, and disposal of impacted soil encountered during below grade demolition work. Soil impacts in this area of the site were not anticipated. Based on field observations and the fill material encountered during surface cover removals, soil removals and subsequent testing and disposal in the western portion of the Phase V were conducted.
- Removal of underground piping and utilities within the upper 3 feet of soil beneath the surface and terminating utility conduits at the site boundary.
- Removal and disposal of buried rail lines and sampling soil below these rail lines.
- Conducting perimeter air monitoring as described in the Revised Perimeter Air Monitoring Plan (AMEC, 2011). The final results of the monitoring will be provided in a separate report for the project.
- Conducting backfill, compaction, and site grading for the Phase V Area.

A brief summary of the concrete sampling and removal work; soil removal, verification soil sampling, placement of backfill materials; other media sampled during the below grade work; waste management and disposal; and below grade demolition work is provided below. The RAP site-specific remediation goals used for soil and concrete during the below grade work are provided in Table 1, along with the site-specific background concentration and RBSLs for metals (such as lead) presented in the FS. In addition, and as required of the City of Vernon, the site-specific PCB remediation goal for concrete was set at greater than 1 mg/kg to eliminate the onsite placement of Restricted Fill outlined in the RAP.

3.0 CONCRETE SAMPLING AND REMOVAL

Prior to beginning the below grade demolition work, asphalt and concrete slab (isolated sections) removals were conducted in the Phase V Area. As asphalt and concrete slab removal progressed, underlying areas of discolored concrete (pink to magenta) were encountered in the northwest corner of the Phase V Area and in some cases discolored soil (black, gray, and/or orange-brown) and fill debris were encountered on the west side of this area under the surface cover.

The concrete slabs and structures that were removed during the below grade demolition work were located primarily in the western parcel of the Phase V Area. Material found within the structures, such as oily sediments, was tested for PCBs, metals and TPH. The concrete and material sample results were used to select the methods for managing the concrete (e.g., released for onsite crushing or transported off-site for disposal). A summary of the concrete sample results is provided in Table 2 and approximate sample locations are shown on Figure 3. Material sample results are summarized on Tables 3, 4, and 5 and approximate sample locations are shown on Figure 5. Analytical laboratory reports are included in Appendix A.

4.0 SOIL REMOVAL, VERIFICATION SAMPLING, AND BACKFILL

Phase V Area soil removal areas were identified during the removal of the surface cover on the west side of this area, and demarcated based on the debris encountered (e.g. fill materials consisting of metal, glass, broken copper piping, brick, etc.) and discolored soil. Initial samples collected of the debris/soil, along with the visual appearance of the fill material, were used to select the areas that required soil removal. The fill material was easily demarcated from the surrounding native soil based on appearance (glass, metal, broken copper piping, etc.) and color. Soil removal in this area was guided by sample results and/or visual observations. After the soil was excavated, verification soil sampling for PCBs, TPH and metals was conducted as described in the SAP and RAP.

In addition to the fill material, a gray slag material was encountered below the pavement (sample #1059). This material was removed for disposal based on visual methods and did result in an excavation.

As below grade structures were encountered and tested, soil sampling below these features was also conducted as outlined in the SAP and RAP. Soil samples depths were measured from the ground surface (which ranged from 177 to 179 feet MSL). Based on this testing, additional areas of metals-impacted soil were identified that required removal for offsite disposal in the Phase V Area. The soil sample locations are shown on Figure 4 (all locations) and Figure 5 (for soil between 0 and 5 feet relative to native grade). The soil removals areas are shown on Figure 5.

A summary of the soil sample results are provided in Tables 3, 4 and 5, and the approximate verification soil sample locations are shown on Figure 5. Soil sample locations that were excavated in the Phase V Area are shown in gray on Figure 5 and listed in Tables 3, 4, and 5 as such with an "E". The remaining soil sample locations shown in black on Figure 5 remain in place and the concentrations of constituents of concern are below the site-specific remediation goals. Analytical laboratory reports are included in Appendix A.

For clarification, furnaces or furnace operations were not present in the Phase V area based on review of historical records; as such soil sampling and analyses for PAHs or dioxins/furans were not warranted. The material encountered in the Phase V Area with a "burned" appearance was mixed with other debris and did not appear to be burned in place, such as sample #1070. This debris, including the "burned" looking material, was excavated and disposed of offsite. The extent of the soil removed was based on sample results and visual indications of the removal of the debris.

Based on the confirmation/verification sampling in the soil removal areas, portions of the Phase V area were released for completion as described in Section 7.0 below. The excavated area was groomed in preparation for final grading.

5.0 OTHER MATERIALS OR MEDIA SAMPLED

As the below grade demolition work progressed, other materials were encountered and required testing. In addition, below grade piping was also tested for PCBs using wipe sample methods. Wipe samples of piping sections were collected by AIS and analyzed for PCBs. The wipe sample results, sample locations and analytical laboratory reports are included in Appendix B. PCBs were not detected in the wipe samples collected from the pipe sections (with a reporting limit of 1 microgram per 100 centimeters squared [$\mu\text{g}/100\text{ cm}^2$]), were removed and shipped offsite for recycling.

In addition, debris composed of refractory bricks was encountered below the surface cover in isolated areas of the Phase V area. Occupational Services, Inc. (OSI) collected samples of this material for isotopic analysis, and concluded that the bricks contained low levels of naturally occurring uranium and thorium daughter products at levels that constitute naturally occurring radioactive material (NORM). A copy of OSI's summary report is included in Appendix C.

6.0 WASTE MANAGEMENT AND DISPOSAL

Waste materials generated during below grade demolition and soil removal work were transported off-site for recycling or to appropriate disposal facilities during the course of the project. Waste materials included demolition debris and various solids. Vehicles and equipment were cleaned of soil and dust prior to leaving the site. AIS was responsible for securing and covering transport vehicles and containers pursuant to applicable Department of Transportation requirements.

Waste materials were sampled and profiled pursuant to regulatory and Treatment, Storage, and Disposal Facility requirements prior to any materials leaving the site. Concrete with PCBs was profiled for disposal based on in situ concentrations pursuant to US EPA's conditional approval letter (US EPA, 2010). Transportation and disposal activities were performed in compliance with applicable state, local, and/or federal laws, and as outlined in the Hazardous Materials Transportation Plan (AMEC, 2012b).

Table 6 provides the approximate quantities of materials removed from the Phase V Area during the below grade demolition and soil removal work and identifies the associated disposal facilities. A final summary of the waste quantities, waste profiles and signed manifests for

materials shipped off site for disposal from the Phase V Area and other Phase Areas was submitted to DTSC in February 2015 (Amec Foster Wheeler, Letter dated February 4, 2015).

7.0 BELOW GRADE DEMOLITION AND STRUCTURE REMOVALS

A few below grade structures were encountered in the Phase V Area and included structural footings, pit/sumps, and concrete blocks below the concrete slab. The locations of the below grade structures are shown on Figure 6, which also depicts the anticipated location of the structures (shaded gray) compared to the actual location of the structures (shaded black).

All of these structures were removed in their entirety as encountered below grade except for the footing for structure #917. No portion of these removed structures is known to remain in place following completion of the demolition activities in the Phase V Area.

Structure #917 was a metal pole with a hook attached to a below grade concrete footing that appeared to extend beneath the block wall separating the west parcel of Phase V Area from the adjacent rail road property. When attempts were made to remove this footing, the block wall began to move. Because attempting to remove the footing was causing instability in the block wall, the metal pole and hook were removed but the concrete footing was left in place and surveyed. This excavation was subsequently backfilled. The record drawing for this structure is included in Appendix D.

Concrete that did not contain PCBs at concentrations greater than 1 mg/kg, was transferred to a concrete stockpile for crushing or was shipped off site for recycling after the concrete crusher equipment was demobilized. The crushed concrete was later used for backfill material at the site and to cover the site in conformance with the Plan (AMEC, 2012d). Gradation reports for the crushed concrete are included in Appendix E.

As noted in Section 4.0, areas of soil excavations are shown on Figure 5, and these areas along with areas where slabs or structures were removed were released for grading. The excavation areas were prepared for final grade by recontouring the remaining site soil. Where required, the backfill material was compacted in conformance with the Plan (AMEC, 2012d). The results of the compaction testing conducted by NorCal Engineering are provided in Appendix E. The record drawing of the final site grading is included in Appendix F.

As specified by the Plan (AMEC, 2012d), underground piping and utilities that were encountered in the upper 3 feet of the site were removed. If the utility piping extended off site, then the utility connection was terminated at the property boundary and capped in conformance with City of Vernon requirements. The locations of terminated utility connections

are shown on Figure 7. A final site-wide record drawing for these features is included in Appendix F.

8.0 CONCLUSIONS AND VERIFICATION OF COMPLETION

AMEC received notification from AIS that they had completed their scope of work for below grade demolition and soil removal work in the Phase V Area. AIS prepared a record drawing (Figure 7) illustrating locations of capped and decommissioned utilities and structures. In addition, AMEC completed verification sampling related to PCBs and metals and confirms that the soil removals were completed pursuant to the RAP for the areas that were discovered in the course of the demolition work were completed.

In addition, this report is being submitted to the City of Vernon Community Services to document the completion of the below grade demolition work in the Phase V Area in accordance with Plan.

This Report documents response actions taken by the former Pechiney facility to perform below grade demolition of the facility and the conduct the soil removals a pursuant to the RAP. These actions, including verification sampling and analysis procedures, waste removal and off-site disposal, were conducted as stated herein this Report and in conformity with the Plan prepared by AMEC (AMEC, 2012d) and approved by the City of Vernon Community Services and the RAP prepared by AMEC (AMEC, 2012c) and approved by the DTSC and the PCB elements conditionally approved by US EPA.

This certification does not warrant or guarantee that all hazardous materials have been completely removed from the site. Hazardous materials may be present at the site in environmental media including soil, soil vapor, and groundwater as a result of not being encountered or identified during below grade demolition activities or previous site assessments.

9.0 REFERENCES

- AMEC Environment & Infrastructure, Inc. (AMEC), 2010, Concrete and Soil Sampling and Analysis Plan, Draft, Former Pechiney Cast Plate, Inc., Facility, Vernon, California, July 27.
- AMEC, 2011, Revised Perimeter Air Monitoring Plan, Below Grade Demolition and Remediation Activities, Former Pechiney Cast Plate, Inc. Facility, Vernon, California, revised October 28.
- AMEC, 2012a, Feasibility Study, Former Pechiney Cast Plate, Inc., Facility, Vernon, California, May 7.
- AMEC, 2012b, Hazardous Materials Transportation Plan, Former Pechiney Cast Plate, Inc., Facility, Vernon, California, November, 2010, revised April 12.
- AMEC, 2012c, Remedial Action Plan, Former Pechiney Cast Plate, Inc. Facility, 3200 Fruitland Avenue, Vernon, California, June, 28.
- AMEC, 2012d, Revised Below Grade Demolition Plan, Former Pechiney Cast Plate, Inc. Facility, 3200 Fruitland Avenue, Vernon, California, August, 31.
- Amec Foster Wheeler, 2015, "Quantities of Materials Removed during Below Grade Demolition, Former Pechiney Cast Plate, Inc. Facility, 3200 Fruitland Avenue, Vernon, California" letter to Chand Sultana, Project Manager, DTSC, February 4.
- U.S. EPA, 2010, Polychlorinated Biphenyls – U.S. EPA Conditional Approval Under 40 CFR 761.61(c), Toxic Substances Control Act – "Polychlorinated Biphenyls Notification Plan, Former Pechiney Cast Plate, Inc., Facility, Vernon, California, July 9, 2009," Letter from Jeff Scott, Director, Waste Management Division, to Donald Thompson, President Pechiney Cast Plate, July 2.
- U.S. EPA, 2011, Polychlorinated Biphenyls – U.S. EPA Conditional Approval Under 40 CFR 761.61(c), Toxic Substances Control Act – "Polychlorinated Biphenyls Notification Plan, Former Pechiney Cast Plate, Inc., Facility, Vernon, California, July 9, 2009," Letter providing conditional approval of the PCB Cleanup Levels from Jeff Scott, Director, Waste Management Division, to Donald Thompson, President Pechiney Cast Plate, July 1.
- U.S. EPA, 2014, Toxic Substances Control Act – Polychlorinated Biphenyls (PCBs) – PCB Cleanup, Former Pechiney Cast Plate, Inc., Facility, Vernon, California – AMEC's Modifications to USEPA's Approvals, February 4.

TABLES

TABLE 1

REVISED TABLE

**SITE-SPECIFIC REMEDIATION GOALS -
PCBs IN SOIL AND CONCRETE, AND METALS AND TPH IN SOIL**
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

June 24, 2015 Rev2

Compound	Remediation Goal (mg/kg)	Explanation
PCBs in Soil		
Aroclor-1254	2.0	Noncarcinogenic RBSL ¹ for construction workers. Also protective of commercial/industrial worker exposure.
Total Aroclors <i>For soil that may be left exposed at the surface (0 to 5 feet bgs)</i>	3.5	Based on the regression analysis for dioxin-like PCB congeners versus total Aroclors in combined soil and concrete presented in Appendix E of the FS (AMEC, 2012a), the total Aroclor concentration that would result in a maximum dioxin TEQ concentration of 81 pg/g. ² Protective of cumulative commercial/industrial worker exposure, and cumulative construction worker exposure, to PCBs.
Total Aroclors <i>For subsurface soil (5 to 15 feet bgs) that only construction workers may come into contact with during excavation, grading, etc. (and that would remain at 5 to 15 feet bgs)</i>	23	Based on the regression analysis for dioxin-like PCB congeners versus total Aroclors in combined soil and concrete presented in Appendix E of the FS (AMEC, 2012a), the total Aroclor concentration that would result in a maximum dioxin TEQ concentration of 530 pg/g. ³ Protective of cumulative construction worker exposure to PCBs.
PCBs in Concrete		
Total Aroclors	1.0* 3.5	Based on the regression analysis for dioxin-like PCB congeners versus total Aroclors in combined soil and concrete presented in Appendix E of the FS (AMEC, 2012a), the total Aroclor concentration (3.5 mg/kg) that would result in a maximum dioxin TEQ concentration of 81 pg/g. Also protective of cumulative construction worker exposure to PCBs. Applying this remediation goal ensures that waste criteria for concrete containing PCBs is also met [i.e., less than 50 mg/kg, as defined in 40 CFR Section 761.61(a)(4)(i)(A)]. * As required by the City of Vernon (agency), the remediation goal for concrete was reduced to a concentration greater than 1 mg/kg to eliminate the placement of "Restricted Fill" onsite. As presented in the RAP (AMEC, 2012c), Restricted Fill was defined as concrete with PCBs at concentrations greater than 1 mg/kg and less than or equal to 3.5 mg/kg.
Metals in Soil		
Arsenic	10	Site-Specific Background Concentration in Soil, established as described in Appendix B of the FS (AMEC, 2012a).
Chromium	25	Site-Specific Background Concentration in Soil, established as described in Appendix B of the FS (AMEC, 2012a).
	640	RBSL in Soil for Outdoor Commercial/Industrial Worker, established as described in Appendix C of the FS (AMEC, 2012a) ⁴
Lead	320	RBSL in Soil for Outdoor Commercial/Industrial Worker, established as described in Appendix C of the FS (AMEC, 2012a).

TABLE 1

REVISED TABLE

**SITE-SPECIFIC REMEDIATION GOALS -
PCBs IN SOIL AND CONCRETE, AND METALS AND TPH IN SOIL
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California**

June 24, 2015 Rev2

Compound	Remediation Goal (mg/kg)	Explanation
TPH in Soil		
c5-c10 hydrocarbons, c6-c10 hydrocarbons, c7-c12 hydrocarbons, and Stoddard solvent	500	Screening Level for the Protection of Groundwater for TPH gasoline range (c4-c12) from the Los Angeles RWQCB Guidebook. ⁵
c10-c20 hydrocarbons and c10-c28 hydrocarbons	1000	Screening Level for the Protection of Groundwater for TPH diesel range (c13-c22) from the Los Angeles RWQCB Guidebook. ⁵
c21-c28 hydrocarbons	10,000	Screening Level for the Protection of Groundwater for TPH as residual fuel (c23-c32) from the Los Angeles RWQCB Guidebook. ⁵

Notes

1. Developed based on the methodology described in Appendix C of the FS (AMEC, 2012). RBSLs were used to conduct the screening-level human health risk assessment for the Site.
2. Based on the carcinogenic RBSL for dioxin-like PCB congeners for outdoor commercial/industrial workers (8.1 pg/g TEQ), adjusted to a target cancer risk of 10⁻⁵.
3. Based on the carcinogenic RBSL for dioxin-like PCB congeners for construction workers (53 pg/g TEQ), adjusted to a target cancer risk of 10⁻⁵.
4. The toxicity criteria for the chromium RG is based on a 1:6 ratio of hexavalent chromium to chromium.
5. Los Angeles RWQCB Interim Site Assessment and Cleanup Guidebook (RWQCB Guidebook, May 1996; updated May 2004), for petroleum hydrocarbons and aromatic hydrocarbons (benzene, toluene, ethylbenzene, and total xylenes [BTEX] compounds) in soil. The selected screening levels were taken from Table 4-1 assuming distance above groundwater is 20 to 150 feet.

Abbreviations

bgs = below ground surface	RWQCB = California Regional Water Quality Control Board
CFR = Code of Federal Regulations	TEQ = toxic equivalent
FS = Feasibility Study	TPH = total petroleum hydrocarbons
mg/kg = milligrams per kilogram	
PCBs = polychlorinated biphenyls	
pg/g = picograms/gram	
RBSL = risk-based screening level	

TABLE 2

REVISED TABLE

CONCRETE SAMPLE RESULTS - PCBs
Phase II Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth - Bottom (feet bls)	Sample Elevation	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	PCB 1262	PCB 1268	Total PCBs (ug/kg)	Total PCBs (mg/kg)	Remarks	Depth Remarks
Concrete Samples																								
5	886-V-O-CS-001	886-CS-001	593	6/3/2014	NA	NA	886	C	co	NA	1177	<50	<50	<50	<50	140	<50	<50	<50	<50	140	0.14	Top of structure	NA
5	886-V-O-CS-002	886-CS-002	593	6/3/2014	NA	NA	886	C	co	NA	1177	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Side of structure pillar	NA
Stockpile Samples																								
5	DC-429	DC-429	0	5/21/2014	NA	NA	NA	D	co	NA	0	<50000	<50000	<50000	<50000	4300000J	<50000	270000J	<50000	<50000	4570000	4570	Pink concrete from concrete stockpile generated from Northwest corner of parcel 6	NA
5	DC-430	DC-430	0	6/25/2014	NA	NA	NA	C	co	NA	0	<50	<50	<50	<50	<50	<50	<50UJ	<50	<50	<50	<0.05	Clean concrete from Parcel 6 stockpile	NA

Note

1. Sample locations are shown on Figure 3.

Abbreviations

PCB = polychlorinated biphenyl

< = not detected at the stated reporting limit

-- = not analyzed

NA = not applicable

feet bls = feet below slab/surface

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

J = estimated concentration

UJ = analyte was not detected at a level greater than or equal to the adjusted reporting limit, however, the reported adjusted reporting limit is approximate

C = crushed on site for reuse

D = disposed

TABLE 3

REVISED TABLE

SOIL AND OTHER SAMPLE RESULTS - PCBs
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth - Bottom (feet bls)	Sample Elevation	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	PCB 1262	PCB 1268	Total PCBs (ug/kg)	Total PCBs (mg/kg)	Remarks	Depth Remarks	
Soil and Other Samples																									
5	886-V-O-SS-001	886-SS-001	593	6/10/2014	NA	NA	886	V	so	4	174	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		Sample beneath structure footprint	NA
5	908-V-P/S-SS-001	908-SS-001	585	6/24/2014	NA	NA	908	V	so	3	175	<50	<50	<50	<50	<50	79	<50	<50	<50	79	0.079		Collected beneath structure footprint, Parcel 6	NA
5	925-V-R/R-SS-001	925-SS-001	594	7/9/2014	NA	NA	925	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-002	925-SS-002	604	7/9/2014	NA	NA	925	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-003	925-SS-003	613	7/9/2014	NA	NA	925	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-004	925-SS-004	623	7/9/2014	NA	NA	925	V	so	2	176	<50	<50	<50	<50	530	<50	110	<50	<50	640	0.64		Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-005	925-SS-005	612	7/9/2014	NA	NA	925	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-006	925-SS-006	622	7/9/2014	NA	NA	925	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-007	925-SS-007	631	7/9/2014	NA	NA	925	V	so	2	176	<51	<51	<51	<51	<51	<51	<51	<51	<51	<51	<0.051		Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-008	925-SS-008	669	8/4/2014	NA	NA	925	V	so	1	177	<50	<50	<50	<50	66	<50	<50	<50	<50	66	0.066		Beneath rail line, in front of Gate	NA
5	925-V-R/R-SS-009	925-SS-009	660	8/4/2014	NA	NA	925	V/E	so	1	177	<50	<50	<50	<50	91	<50	51J	<50	<50	142	0.142		Beneath rail line, in front of Gate	NA
5	925-V-R/R-SS-010	925-SS-010	660	8/11/2014	NA	NA	925	V	so	2	176	<51	<51	<51	<51	<51	<51	<51	<51	<51	<51	<0.051		Verification sample for SS-009 soil removal	North Sidewall
5	925-V-R/R-SS-011	925-SS-011	660	8/11/2014	NA	NA	925	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		Verification sample for SS-009 soil removal	East Sidewall
5	925-V-R/R-SS-012	925-SS-012	660	8/11/2014	NA	NA	925	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		Verification sample for SS-009 soil removal	West Sidewall
5	925-V-R/R-SS-013	925-SS-013	660	8/11/2014	NA	NA	925	V	so	3	175	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		Verification sample for SS-009 soil removal	Bottom
5	925-V-R/R-SS-014	925-SS-014	660	8/11/2014	NA	NA	925	V	so	3	175	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		Verification sample for SS-009 soil removal	Bottom
5	925-V-R/R-SS-015	925-SS-015	660	8/11/2014	NA	NA	925	V	so	3	175	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		Verification sample for SS-009 soil removal area	Bottom
5	#1056	#1056	638	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05		West parcel, soil, greenish colored, TPH odor	NA
5	#1057	#1057	629	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	<50	<50	<50	<50	140	550	440	<50	<50	1130	1.13		West parcel, soil, brown/black colored, no observable odor, sediment	NA
5	#1058	#1058	620	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	<50	<50	<50	<50	72	<50	<50	<50	<50	72	0.072		West parcel, soil, reddish rust below pavement	NA
5	#1059	#1059	593	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	<50	<50	<50	<50	73	<50	<50	<50	<50	73	0.073		West parcel, gray slag material below pavement	NA
5	#1060	#1060	620	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	<50	<50	<50	<50	73	<50	<50	<50	<50	73	0.073		West parcel, soil, dark gray, some odor observable (potential hydrocarbon)	NA

TABLE 3

REVISED TABLE

SOIL AND OTHER SAMPLE RESULTS - PCBs
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth - Bottom (feet bls)	Sample Elevation	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	PCB 1262	PCB 1268	Total PCBs (ug/kg)	Total PCBs (mg/kg)	Remarks	Depth Remarks
5	#1066	#1066	667	5/29/2014	NA	NA	NA	D	so	1	177	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<0.5	Resinous, black material around pipe	NA
5	#1068	#1068	639	5/29/2014	NA	NA	NA	V/E	so	NA	1177	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Debris pit, dark gray soil	West Sidewall
5	#1070	#1070	667	5/29/2014	NA	NA	NA	D	so	0.5	177.5	<50	<50	<50	<50	490	<50	<50	<50	<50	490	0.49	Black soil from pit that contained debris with a burned appearance (not burned in place)	NA
5	#1071	#1071	658	5/29/2014	NA	NA	NA	V/E	so	1	177	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Side wall of area that contained debris that appeared burned (not burned in place)	NA
5	#1072	#1072	658	5/29/2014	NA	NA	NA	V/E	so	0	178	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	White, chalky material from debris pit	NA
5	#1099	#1099	611	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1100	#1100	620	6/4/2014	NA	NA	NA	V	so	2	176	<51	<51	<51	<51	<51	<51	<51	<51	<51	<51	<0.051	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1101	#1101	620	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1102	#1102	629	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1103	#1103	629	6/4/2014	NA	NA	NA	V	so	2	176	<51	<51	<51	<51	560	<51	100	<51	<51	660	0.66	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1104	#1104	638	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1105	#1105	639	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1106	#1106	648	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1107	#1107	639	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1108	#1108	639	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1109	#1109	630	6/4/2014	NA	NA	NA	V/E	so	2	176	<51	<51	<51	<51	<51	<51	730	<51	<51	730	0.73	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1110	#1110	630	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1111	#1111	630	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1112	#1112	630	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1113	#1113	621	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1114	#1114	621	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1115	#1115	611	6/4/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA

TABLE 3

REVISED TABLE

SOIL AND OTHER SAMPLE RESULTS - PCBs
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth - Bottom (feet bls)	Sample Elevation	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	PCB 1262	PCB 1268	Total PCBs (ug/kg)	Total PCBs (mg/kg)	Remarks	Depth Remarks
5	#1116	#1116	640	6/5/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	#1117	#1117	649	6/5/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	120	<50	<50	<50	<50	120	0.12	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	#1118	#1118	648	6/5/2014	NA	NA	NA	V/E	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	#1119	#1119	649	6/5/2014	NA	NA	NA	V	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	#1120	#1120	648	6/5/2014	NA	NA	NA	V/E	so	2	176	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	#1121	#1121	648	6/5/2014	NA	NA	NA	V	so	2	176	<51	<51	<51	<51	150	<51	<51	<51	<51	150	0.15	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	#1332	#1332-5	667	8/11/2014	NA	NA	NA	V	so	5	173	<50	<50	<50	<50	64	<50	<50	<50	<50	64	0.064	Verification sample for removal of #1332	NA
5	908-V-P/S-O-001	908-S-001	585	6/10/2014	NA	NA	908	D	ot	NA	1177	<500	<500	<500	<500	6000	<500	2100	<500	<500	8100	8.1	Black, oily sediment within structure	NA
Stockpile Samples																								
5	#1067	#1067	0	5/29/2014	NA	NA	NA	D	so	NA	0	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Stockpile sample of material removed from debris pit	NA
5	#1069	#1069	0	5/29/2014	NA	NA	NA	D	so	NA	0	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Stockpile sample of material from debris pit, brownish soil	NA
5	#1073	#1073	0	5/29/2014	NA	NA	NA	D	so	NA	0	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.05	Stockpile sample from debris pit containing glass and brick layer	NA
5	#1228	#1228	0	7/2/2014	NA	NA	NA	D	so	NA	0	<50	<50	<50	<50	77	<50	<50	<50	<50	77	0.077	Parcel 6, white material from stockpile	NA

Note

1. Other (ot) samples are shown on Figure 5. Soil (so) samples are shown on Figures 4 and 5.

PCB = polychlorinated biphenyl

so = soil

ot = other type of sample

< = not detected at the stated reporting limit

-- = not analyzed

NA = not applicable

feet bls = feet below slab/surface

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

J = estimated concentration

D = disposed

E = excavated

V = verification

V/E = verification sample but excavated

TABLE 4

REVISED TABLE

SOIL AND OTHER SAMPLE RESULTS - TPH
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Results reported in milligrams per kilogram (mg/kg)

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth Bottom (feet bls)	Sample Elevation	TPH as gas	TPH as diesel	TPH as motor oil	TPH Total	Remarks	Depth Remarks
Soil and Other Samples																	
5	925-V-R/R-SS-001	925-SS-001	594	7/9/2014	NA	NA	925	V	so	2	176	<4.9	<4.9	<4.9	<5	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-002	925-SS-002	604	7/9/2014	NA	NA	925	V	so	2	176	<5.1	<5.1	<5.1	<5	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-003	925-SS-003	613	7/9/2014	NA	NA	925	V	so	2	176	<5	<5	<5	<5	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-004	925-SS-004	623	7/9/2014	NA	NA	925	V	so	2	176	<5	16	94	120	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-005	925-SS-005	612	7/9/2014	NA	NA	925	V	so	2	176	<5	<5	<5	<5	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-006	925-SS-006	622	7/9/2014	NA	NA	925	V	so	2	176	<5	<5	<5	<5	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-007	925-SS-007	631	7/9/2014	NA	NA	925	V	so	2	176	<5	150	254	410	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA
5	925-V-R/R-SS-008	925-SS-008	669	8/4/2014	NA	NA	925	V	so	1	177	<4.9	<4.9	40.3	50	Beneath rail line, in front of Gate	NA
5	925-V-R/R-SS-009	925-SS-009	660	8/4/2014	NA	NA	925	V/E	so	1	177	<25	<25	38	85	Beneath rail line, in front of Gate	NA

TABLE 4

REVISED TABLE

SOIL AND OTHER SAMPLE RESULTS - TPH
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Results reported in milligrams per kilogram (mg/kg)

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth Bottom (feet bls)	Sample Elevation	TPH as gas	TPH as diesel	TPH as motor oil	TPH Total	Remarks	Depth Remarks
5	#1056	#1056	638	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	<50	527	1340	2000	West parcel, soil, greenish colored, TPH odor	NA
5	#1060	#1060	620	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	<49	1278	4220	5500	West parcel, soil, dark gray, some odor observable (potential hydrocarbon)	NA
5	#1066	#1066	667	5/29/2014	NA	NA	NA	D	so	1	177	<10000	35000	206000	240000	Resinous, black material around pipe	NA
5	#1068	#1068	639	5/29/2014	NA	NA	NA	V/E	so	NA	1177	<1000	8100	20100	31000	Debris pit, dark gray soil	West Sidewall
5	#1070	#1070	667	5/29/2014	NA	NA	NA	D	so	0.5	177.5	<25	130	866	990	Black soil from pit that contained debris with a burned appearance (not burned in place)	NA
5	#1071	#1071	658	5/29/2014	NA	NA	NA	V/E	so	1	177	<5	<5	118.2	120	Side wall of area that contained debris that appeared burned (not burned in place)	NA
5	#1072	#1072	658	5/29/2014	NA	NA	NA	V/E	so	0	178	<4.9	<4.9	25.7	41	White, chalky material from debris pit	NA
5	#1099	#1099	611	6/4/2014	NA	NA	NA	V	so	2	176	<5	40	320	360	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1100	#1100	620	6/4/2014	NA	NA	NA	V	so	2	176	<4.9	<4.9	44.5	53	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1101	#1101	620	6/4/2014	NA	NA	NA	V	so	2	176	<5	17.3	26.2	54	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA

TABLE 4

REVISED TABLE

SOIL AND OTHER SAMPLE RESULTS - TPH
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Results reported in milligrams per kilogram (mg/kg)

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth Bottom (feet bls)	Sample Elevation	TPH as gas	TPH as diesel	TPH as motor oil	TPH Total	Remarks	Depth Remarks
5	#1102	#1102	629	6/4/2014	NA	NA	NA	V	so	2	176	<5	<5	<5	<5	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1103	#1103	629	6/4/2014	NA	NA	NA	V	so	2	176	<25	<25	321	360	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1104	#1104	638	6/4/2014	NA	NA	NA	V	so	2	176	<5	46.6	180	230	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1105	#1105	639	6/4/2014	NA	NA	NA	V	so	2	176	<4.9	117	132	260	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1106	#1106	648	6/4/2014	NA	NA	NA	V	so	2	176	<5	<5	<5	<5	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1107	#1107	639	6/4/2014	NA	NA	NA	V	so	2	176	<4.9	<4.9	<4.9	<5	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1108	#1108	639	6/4/2014	NA	NA	NA	V	so	2	176	<4.9	<4.9	<4.9	<5	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1109	#1109	630	6/4/2014	NA	NA	NA	V/E	so	2	176	<4.9	16.8	224	240	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1110	#1110	630	6/4/2014	NA	NA	NA	V	so	2	176	<5.1	<5.1	<5.1	<5	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1111	#1111	630	6/4/2014	NA	NA	NA	V	so	2	176	<4.9	<4.9	<4.9	<5	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA

TABLE 4

REVISED TABLE

SOIL AND OTHER SAMPLE RESULTS - TPH
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Results reported in milligrams per kilogram (mg/kg)

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth Bottom (feet bls)	Sample Elevation	TPH as gas	TPH as diesel	TPH as motor oil	TPH Total	Remarks	Depth Remarks
5	#1112	#1112	630	6/4/2014	NA	NA	NA	V	so	2	176	<5	<5	<5	<5	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1113	#1113	621	6/4/2014	NA	NA	NA	V	so	2	176	<5	<5	11.8	23	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1114	#1114	621	6/4/2014	NA	NA	NA	V	so	2	176	<4.9	93	331	420	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1115	#1115	611	6/4/2014	NA	NA	NA	V	so	2	176	<5	<5	<5	<5	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1116	#1116	640	6/5/2014	NA	NA	NA	V	so	2	176	<4.9	<4.9	<4.9	<5	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	#1117	#1117	649	6/5/2014	NA	NA	NA	V	so	2	176	<5	<5	<5	<5	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	#1118	#1118	648	6/5/2014	NA	NA	NA	V/E	so	2	176	<5.1	<5.1	147.4	150	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	#1119	#1119	649	6/5/2014	NA	NA	NA	V	so	2	176	<4.9	<4.9	<4.9	<5	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	#1120	#1120	648	6/5/2014	NA	NA	NA	V/E	so	2	176	<5	20	221.9	240	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA

TABLE 4

REVISED TABLE

SOIL AND OTHER SAMPLE RESULTS - TPH
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Results reported in milligrams per kilogram (mg/kg)

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth Bottom (feet bls)	Sample Elevation	TPH as gas	TPH as diesel	TPH as motor oil	TPH Total	Remarks	Depth Remarks
5	#1121	#1121	648	6/5/2014	NA	NA	NA	V	so	2	176	<4.9	<4.9	12.6	21	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	908-V-P/S-O-001	908-S-001	585	6/10/2014	NA	NA	908	D	ot	NA	1177	130	2032	4075	6200	Black, oily sediment within structure	NA
Stockpile Samples																	
5	#1067	#1067	0	5/29/2014	NA	NA	NA	D	so	NA	0	854	2070	1907	4800	Stockpile sample of material removed from debris pit	NA
5	#1069	#1069	0	5/29/2014	NA	NA	NA	D	so	NA	0	<5	19	147	170	Stockpile sample of material from debris pit, brownish soil	NA
5	#1073	#1073	0	5/29/2014	NA	NA	NA	D	so	NA	0	<25	<25	142	180	Stockpile sample from debris pit containing glass and brick layer	NA

Note

1. Other (ot) samples are shown on Figure 5. Soil (so) samples are shown on Figures 4 and 5.

Abbreviations

- so = soil
- < = not detected at the stated reporting limit
- = not analyzed
- NA = not applicable
- feet bls = feet below slab/surface
- D = disposed
- V = verification
- V/E = verification sample but excavated

TABLE 5
SOIL AND OTHER SAMPLE RESULTS - METALS
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth - Bottom (feet bls)	Sample Elevation	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium, Total	Cobalt	Copper	Lead and Compounds (inorganic)	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury	Remarks	Depth Remarks		
Soil and Other Samples																																
5	925-V-R/R-SS-001	925-SS-001	594	7/9/2014	NA	NA	925	V	so	2	176	<0.769UJ	1.14	143	0.387	<0.513	18.1	12.5	17.8	2	<0.256	13.2	<0.769	<0.256	<0.769UJ	40.6	58.5	<0.0833	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA		
5	925-V-R/R-SS-002	925-SS-002	604	7/9/2014	NA	NA	925	V	so	2	176	<0.739UJ	<0.739	125	0.368	<0.493	16.6	11.3	15.9	2.03	<0.246	11.5	<0.739	<0.246	<0.739UJ	38.5	52.4	<0.082	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA		
5	925-V-R/R-SS-003	925-SS-003	613	7/9/2014	NA	NA	925	V	so	2	176	<0.725UJ	<0.725	117	0.34	<0.483	16.1	10.7	15	2.91	<0.242	11.3	<0.725	<0.242	<0.725UJ	35.5	50.8	<0.082	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA		
5	925-V-R/R-SS-004	925-SS-004	623	7/9/2014	NA	NA	925	V	so	2	176	<0.728UJ	5.08	151	0.481	<0.485	46.4	31.7	116	90.3	0.589	45.3	<0.728	<0.243	<0.728UJ	39.7	237	0.171	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA		
5	925-V-R/R-SS-005	925-SS-005	612	7/9/2014	NA	NA	925	V	so	2	176	<0.714UJ	<0.714	123	0.376	<0.476	17.3	11.5	16.6	2.06	<0.238	12	<0.714	<0.238	<0.714UJ	40.2	49.8	<0.0794	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA		
5	925-V-R/R-SS-006	925-SS-006	622	7/9/2014	NA	NA	925	V	so	2	176	<0.761UJ	<0.761	120	0.347	<0.508	16.4	10.9	15	3.22	<0.254	11.5	<0.761	<0.254	<0.761UJ	37.4	54.3	<0.082	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA		
5	925-V-R/R-SS-007	925-SS-007	631	7/9/2014	NA	NA	925	V	so	2	176	<0.765UJ	<0.765	113	0.336	<0.51	16.3	10.6	17.4	6.45	0.299	12.7	<0.765	<0.255	<0.765UJ	35.8	54	<0.0862	Collected after ballast was cleaned out; Parcel 6 (Rail Spurs)	NA		
5	925-V-R/R-SS-008	925-SS-008	669	8/4/2014	NA	NA	925	V	so	1	177	<0.758	3.52	154	0.316	<0.505	26.6	14.2	103	47.8	0.458	48.3	<0.758	<0.253	<0.758	28.1	195	0.101	Beneath rail line, in front of Gate	NA		
5	925-V-R/R-SS-009	925-SS-009	660	8/4/2014	NA	NA	925	V/E	so	1	177	<0.754	10.3	729	0.321	13.9	190	31.8	538	798	8.33	103	<0.754	<0.251	<0.754	36.7	2670	1.97	Beneath rail line, in front of Gate	NA		
5	925-V-R/R-SS-010	925-SS-010	660	8/11/2014	NA	NA	925	V	so	2	176	2.73	1.96	357	0.353	1.47	19.1	11.6	73.8	151	<0.248	20.1	<0.743	<0.248	<0.743	32.5	1350	0.162	Verification sample for SS-009 soil removal	North Sidewall		
5	925-V-R/R-SS-011	925-SS-011	660	8/11/2014	NA	NA	925	V	so	2	176	<0.75	1.45	223	0.324	1.02	18.8	11.7	56	124	0.436	15.1	<0.75	<0.25	<0.75	30.5	734	<0.0806	Verification sample for SS-009 soil removal	East Sidewall		
5	925-V-R/R-SS-012	925-SS-012	660	8/11/2014	NA	NA	925	V	so	2	176	1.93	3.11	307	0.354	1.46	23	12.9	91.7	199	0.807	20.7	<0.739	<0.246	<0.739	33.7	1100	0.195	Verification sample for SS-009 soil removal	West Sidewall		
5	925-V-R/R-SS-013	925-SS-013	660	8/11/2014	NA	NA	925	V	so	3	175	<0.739	<0.739	178	0.36	<0.493	17.2	12	40.2	61.3	<0.246	14.1	<0.739	<0.246	<0.739	33.9	338	<0.0806	Verification sample for SS-009 soil removal	Bottom		
5	925-V-R/R-SS-014	925-SS-014	660	8/11/2014	NA	NA	925	V	so	3	175	<0.735	<0.735	185	0.312	<0.49	15	10.1	40	64.5	<0.245	12.3	<0.735	<0.245	<0.735	29	403	0.957	Verification sample for SS-009 soil removal	Bottom		
5	925-V-R/R-SS-015	925-SS-015	660	8/11/2014	NA	NA	925	V	so	3	175	<0.739	1.07	150	0.336	<0.493	15.2	10.9	27.5	86.5	<0.246	12.8	<0.739	<0.246	<0.739	32.2	153	0.236	Verification sample for SS-009 soil removal area	Bottom		
5	#1056	#1056	638	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	15.1	3.2	142	0.342	<0.5	30.1	12.6	70.2	377	0.74	89.5	<0.75	<0.25	<0.75	50.6	328	0.364	West parcel, soil, greenish colored, TPH odor	NA		
5	#1057	#1057	629	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	<0.75	3.04	71.5	<0.25	0.798	46.5	7.06	80.8	104	11.2	53.8	<0.75	<0.25	<0.75	22.8	346	<0.0833	West parcel, soil, brown/black colored, no observable odor, sediment	NA		
5	#1058	#1058	620	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	<0.75	21.9	80.2	<0.25	<0.5	58.2	28.4	262	18.5	0.676	116	<0.75	<0.25	<0.75	19.3	78.4	<0.0794	West parcel, soil, reddish rust below pavement	NA		
5	#1059	#1059	593	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	<0.735	39.5	56.5	<0.245	<0.49	108	25.5	438	45.5	2.45	416	<0.735	<0.245	<0.735	2.47	57.9	<0.0847	West parcel, gray slag material below pavement	NA		
5	#1060	#1060	620	5/22/2014	NA	NA	NA	V/E	so	0.75	177.25	<0.743	7.37	129	0.328	<0.495	27.1	13.1	83.9	20.2	0.359	109	<0.743	<0.248	<0.743	31.5	86.7	<0.082	West parcel, soil, dark gray, some odor observable (potential hydrocarbon)	NA		
5	#1066	#1066	667	5/29/2014	NA	NA	NA	D	so	1	177	<0.758UJ	<0.758	0.644	<0.253	<0.505	0.334	<0.253	<0.505	1.5	<0.253	0.288	<0.758	<0.253	<0.758	0.314J+	27.4	<0.0794	Resinous, black material around pipe	NA		
5	#1068	#1068	639	5/29/2014	NA	NA	NA	V/E	so	NA	1177	<0.746UJ	15.4	148	0.286	<0.498	42.4	15.8	101	79.5	0.721	301	<0.746	<0.249	<0.746	28.5J+	222	0.262	Debris pit, dark gray soil	West Sidewall		
5	#1070	#1070	667	5/29/2014	NA	NA	NA	D	so	0.5	177.5	293J-	39.9	3520	<0.251	16.5	123	38.4	1250	13500	4.51	405	<0.754	<0.251	<0.754	22.4J+	12500		Black soil from pit that contained debris with a burned appearance (not burned in place)	NA		

TABLE 5
SOIL AND OTHER SAMPLE RESULTS - METALS
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth - Bottom (feet bls)	Sample Elevation	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium, Total	Cobalt	Copper	Lead and Compounds (inorganic)	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury	Remarks	Depth Remarks
5	#1071	#1071	658	5/29/2014	NA	NA	NA	V/E	so	1	177	24.8J-	14	688	<0.248	4.18	138	33.8	933	1610	5.69	276	<0.743	<0.248	<0.743	25.4J+	2650	0.735	Side wall of area that contained debris that appeared burned (not burned in place)	NA
5	#1072	#1072	658	5/29/2014	NA	NA	NA	V/E	so	0	178	<0.754UJ	<0.754	79.7	0.36	<0.503	9.92	2.61	75.7	88.5	0.522	18.8	<0.754	<0.251	<0.754	3.47J+	233	0.392	White, chalky material from debris pit	NA
5	#1099	#1099	611	6/4/2014	NA	NA	NA	V	so	2	176	<0.75UJ	2.76	150	0.388	<0.5	18.5	11.9	29.8J+	59.7J	<0.25	17.4	<0.75	<0.25	<0.75	36.6	81.9J+	<0.0833	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1100	#1100	620	6/4/2014	NA	NA	NA	V	so	2	176	<0.758UJ	6.37	146	0.382	<0.505	19.9	13.2	63.7J+	37.3J	0.311	44.6	<0.758	<0.253	<0.758	35.1	123J+	<0.0847	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1101	#1101	620	6/4/2014	NA	NA	NA	V	so	2	176	<0.746UJ	1.14	166	0.449	<0.498	20.5	13.8	21.4J+	2.57J	0.278	15.9	<0.746	<0.249	<0.746	41.5	65.8J+	0.0993	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1102	#1102	629	6/4/2014	NA	NA	NA	V	so	2	176	<0.725UJ	1.5	157	0.439	<0.483	19.4	13.3	19.5J+	1.72J	<0.242	14.7	<0.725	<0.242	<0.725	40.1	63.2J+	<0.0694	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1103	#1103	629	6/4/2014	NA	NA	NA	V	so	2	176	<0.728UJ	3.1	117	0.263	0.534	20.5	8.77	75.2J+	94.6J	0.371	42.8	<0.728	<0.243	<0.728	27.9	271J+	0.31	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1104	#1104	638	6/4/2014	NA	NA	NA	V	so	2	176	<0.739UJ	0.981	107	0.317	2	20.2	11.2	55J+	30.8J	1.26	15.1	<0.739	<0.246	<0.739	30.1	334J+	0.185	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1105	#1105	639	6/4/2014	NA	NA	NA	V	so	2	176	<0.75UJ	1.53	135	0.391	<0.5	17.6	11.7	19.1J+	4.64J	<0.25	13.7	<0.75	<0.25	<0.75	35.6	69.1J+	<0.0781	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1106	#1106	648	6/4/2014	NA	NA	NA	V	so	2	176	<0.732UJ	0.817	125	0.392	<0.488	16.6	11.3	16.1J+	1.6J	<0.244	12.1	<0.732	<0.244	<0.732	35.5	52.8J+	<0.082	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1107	#1107	639	6/4/2014	NA	NA	NA	V	so	2	176	<0.735UJ	0.925	132	0.388	<0.49	17.4	11.7	16.5J+	1.68J	<0.245	12.7	<0.735	<0.245	<0.735	37.5	54.3J+	<0.0847	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1108	#1108	639	6/4/2014	NA	NA	NA	V	so	2	176	<0.732UJ	1.21	155	0.371	<0.488	16.6	11.5	23J+	10.6J	<0.244	13.7	<0.732	<0.244	<0.732	34.8	110J+	0.342	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1109	#1109	630	6/4/2014	NA	NA	NA	V/E	so	2	176	<0.743UJ	24.6	142	0.405	<0.495	22.1	10.8	108J+	97.2J	0.437	18.3	<0.743	<0.248	<0.743	32.9	256J+	0.396	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1110	#1110	630	6/4/2014	NA	NA	NA	V	so	2	176	<0.761UJ	2.16	137	0.394	<0.508	18	12	24.1J+	8.11J	<0.254	13.5	<0.761	<0.254	<0.761	36.3	69.6J+	<0.0862	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1111	#1111	630	6/4/2014	NA	NA	NA	V	so	2	176	<0.735UJ	1.54	138	0.387	<0.49	17.8	12.3	21.4J+	8.37J	<0.245	14	<0.735	<0.245	<0.735	36.6	67.3J+	0.0803	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1112	#1112	630	6/4/2014	NA	NA	NA	V	so	2	176	<0.728UJ	1.08	120	0.371	<0.485	15.6	10.7	16.3J+	2.65J	<0.243	11.9	<0.728	<0.243	<0.728	34.1	54.3J+	<0.0758	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1113	#1113	621	6/4/2014	NA	NA	NA	V	so	2	176	<0.743UJ	1.32	165	0.423	<0.495	19.2	12.4	63.7J+	1.76J	<0.248	17.5	<0.743	<0.248	<0.743	39.1	62.5J+	<0.0781	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1114	#1114	621	6/4/2014	NA	NA	NA	V	so	2	176	<0.761UJ	2.33	178	0.384	<0.508	20.9	12.9	108J+	98.5J	<0.254	35.5	<0.761	<0.254	<0.761	36.3	113J+	<0.0781	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1115	#1115	611	6/4/2014	NA	NA	NA	V	so	2	176	<0.739UJ	1.21	147	0.405	<0.493	18.3	12.6	18.9J+	2.4J	<0.246	14	<0.739	<0.246	<0.739	38.5	61.7J+	<0.082	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1116	#1116	640	6/5/2014	NA	NA	NA	V	so	2	176	<0.728	1.08	109	0.33	<0.485	13.9	10.1	14.6	1.67	<0.243	10.4	<0.728	<0.243	<0.728	31.7	50.5	<0.0806	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1117	#1117	649	6/5/2014	NA	NA	NA	V	so	2	176	<0.75	1.38	137	0.326	<0.5	17.8	10.7	24.6	30.4	<0.25	13.4	<0.75	<0.25	<0.75	33	110	<0.0833	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1118	#1118	648	6/5/2014	NA	NA	NA	V/E	so	2	176	27.6	2.43	245	0.369	<0.49	20.9	12.3	156	613	<0.245	18.8	<0.735	<0.245	<0.735	35.7	297	0.0942	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1119	#1119	649	6/5/2014	NA	NA	NA	V	so	2	176	<0.725	0.933	143	0.334	<0.483	16	12.4	22	12.5	<0.242	12.7	<0.725	<0.242	<0.725	32.9	116	<0.0847	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA
5	#1120	#1120	648	6/5/2014	NA	NA	NA	V/E	so	2	176	<0.739	2.01	536	0.293	<0.493	18.1	9.53	1060	679	0.72	17.3	<0.739	<0.246	<0.739	29.6	633	0.165	Soil removal verification samples for Parcel 6, samples collected after the removal of #1066 to #1073 and #1056 to #1060	NA

TABLE 5
SOIL AND OTHER SAMPLE RESULTS - METALS
Phase V Area - Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth - Bottom (feet bls)	Sample Elevation	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium, Total	Cobalt	Copper	Lead and Compounds (inorganic)	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury	Remarks	Depth Remarks
5	#1121	#1121	648	6/5/2014	NA	NA	NA	V	so	2	176	<0.743	1.56	129	0.352	<0.495	17.5	12.8	20.4	11.1	<0.248	16.2	<0.743	<0.248	<0.743	32.4	64.7	<0.0833	Soil removal verification samples for Parcel 6, samples collected after the removal for #1066 to #1073 and #1056 to #1060	NA
5	#1126	#1126	648	6/16/2014	NA	NA	NA	V	so	3	175	<0.773UJ	1.43	117	0.314	<0.515	13.9	10.2	13.8	0.905J-	<0.258	10.4	<0.773	<0.258	<0.773UJ	31	45.2J-	<0.0794	Parcel 6, verification sample for removal of #1118 and #1120	NA
5	#1127	#1127	648	6/16/2014	NA	NA	NA	V	so	3	175	<0.754UJ	1.35	119	0.326	<0.503	14.7	10.9	16.2	0.703J-	0.39	11	<0.754	<0.251	<0.754UJ	32.4	50.2J-	<0.0833	Parcel 6, verification sample for removal of #1118 and #1120	NA
5	#1128	#1128	639	6/16/2014	NA	NA	NA	V	so	3	175	<0.735UJ	1.97	121	0.327	<0.49	15	10.7	14.6	1.38J-	<0.245	10.9	<0.735	<0.245	<0.735UJ	32.5	50.6J-	<0.0806	Parcel 6, verification sample for removal of #1118 and #1120	NA
5	#1129	#1129	640	6/16/2014	NA	NA	NA	V	so	2.5	175.5	<0.761UJ	2.27	122	0.34	<0.508	15.7	10.9	20.8	5.76J-	<0.254	11.6	<0.761	<0.254	<0.761UJ	33.4	55.9J-	0.121	Parcel 6, verifications sample for removal of #1109	NA
5	#1130	#1130	639	6/16/2014	NA	NA	NA	V	so	2.5	175.5	<0.758UJ	1.09	113	0.314	<0.505	13.9	10	14	1.06J-	<0.253	10.3	<0.758	<0.253	<0.758UJ	30.8	44.8J-	<0.0794	Parcel 6, verifications sample for removal of #1109	NA
5	#1131	#1131	630	6/16/2014	NA	NA	NA	V	so	3	175	<0.75UJ	9.99	121	0.341	<0.5	15.4	10.6	28.3	22.8J-	<0.25	11.7	<0.75	<0.25	<0.75UJ	32.8	75.1J-	<0.0833	Parcel 6, verifications sample for removal of #1109	NA
5	#1162	#1162	657	6/24/2014	NA	NA	NA	V	so	3	175	<0.743UJ	<0.743	116	0.351	<0.495	16.4	10.1	20.7	15.8	<0.248	19.8	<0.743	<0.248	<0.743UJ	35.9	95.7	<0.0877	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1163	#1163	657	6/24/2014	NA	NA	NA	V	so	3	175	<0.761UJ	<0.761	123	0.391	<0.508	17.7	11.3	16.3	2.86	<0.254	12.2	<0.761	<0.254	<0.761UJ	40.8	55.3	<0.082	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1164	#1164	657	6/24/2014	NA	NA	NA	V	so	3	175	<0.721UJ	0.796	109	0.293	<0.481	16.3	9.31	36.3	48.2	<0.24	19.5	<0.721	<0.24	<0.721UJ	31.5	129	0.117	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1165	#1165	657	6/24/2014	NA	NA	NA	V	so	3	175	<0.758UJ	1.95	158	0.341	1.92	22.1	11.5	37	45.8	0.378	28.4	<0.758	<0.253	<0.758UJ	35.6	771	0.128	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1166	#1166	656	6/24/2014	NA	NA	NA	V	so	3	175	<0.761UJ	2	125	0.324	<0.508	23.1	10.6	52.9	94.5	<0.254	44.9	<0.761	<0.254	<0.761UJ	33.2	198	0.125	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1167	#1167	656	6/24/2014	NA	NA	NA	V	so	3	175	<0.75UJ	3.87	130	0.387	0.623	20.8	11.9	35.4	18.3	<0.25	39.5	<0.75	<0.25	<0.75UJ	39.4	240	0.231	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1168	#1168	647	6/24/2014	NA	NA	NA	V	so	3	175	<0.773UJ	<0.773	141	0.452	<0.515	20	12.7	19.5	2.19	<0.258	14.1	<0.773	<0.258	<0.773UJ	45	60.6	<0.0862	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1169	#1169	647	6/24/2014	NA	NA	NA	V	so	3	175	<0.739UJ	<0.739	140	0.422	<0.493	21.9	12.6	26.2	13	0.269	24.2	<0.739	<0.246	<0.739UJ	43.7	80.1	<0.082	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1170	#1170	638	6/24/2014	NA	NA	NA	V	so	3	175	<0.739UJ	<0.739	135	0.422	<0.493	19.3	12.4	18.8	3.29	<0.246	14.5	<0.739	<0.246	<0.739UJ	44.2	61.1	<0.0781	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1171	#1171	656	6/24/2014	NA	NA	NA	V	so	3	175	<0.743UJ	<0.743	133	0.403	<0.495	19.8	12.1	22.3	13.5	<0.248	14.9	<0.743	<0.248	<0.743UJ	41.8	84	<0.082	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1172	#1172	656	6/24/2014	NA	NA	NA	V	so	3	175	<0.743UJ	1.06	66.6	0.383	<0.495	17.6	9.65	19.7	35.1	<0.248	14.1	<0.743	<0.248	<0.743UJ	33.6	75	<0.0877	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1173	#1173	647	6/24/2014	NA	NA	NA	V	so	3	175	<0.75UJ	<0.75	116	0.369	<0.5	16.8	10.8	15	1.72	<0.25	11.6	<0.75	<0.25	<0.75UJ	38.5	50.4	<0.0806	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1174	#1174	647	6/24/2014	NA	NA	NA	V	so	3	175	<0.75UJ	<0.75	139	0.439	<0.5	20	12.8	18.8	2.18	<0.25	14	<0.75	<0.25	<0.75UJ	44.3	60.9	<0.0833	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1175	#1175	638	6/24/2014	NA	NA	NA	V	so	3	175	<0.739UJ	<0.739	137	0.413	<0.493	19.9	12.4	26.4	8.86	0.271	14.3	<0.739	<0.246	<0.739UJ	43	76.8	<0.0847	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1176	#1176	637	6/24/2014	NA	NA	NA	V	so	3	175	<0.754UJ	<0.754	148	0.45	<0.503	20.8	13.2	21.2	3.82	0.28	23.6	<0.754	<0.251	<0.754UJ	46	76.3	<0.082	Verification sample for the soil removal of metal-impacted material, Parcel 6, fill material	NA
5	#1247	#1247	665	7/15/2014	NA	NA	NA	V	so	2.5	175.5	<0.746	0.76	315	0.364	<0.498	35.1	10.7	19.8	9.66	<0.249	12.5	<0.746	<0.249	<0.746	34.7	75.7	0.11	Verficaiton sample for southern extent of metals impacted area	NA
5	#1248	#1248	665	7/15/2014	NA	NA	NA	V	so	2.5	175.5	<0.746	<0.746	137	0.396	<0.498	18.6	11.8	18.9	5.25	<0.249	13	<0.746	<0.249	<0.746	38.2	69.3	<0.0847	Verficaiton sample for southern extent of metals impacted area	NA

TABLE 5

SOIL AND OTHER SAMPLE RESULTS - METALS

Phase V Area - Pechiney Cast Plate, Inc. Facility

3200 Fruitland Avenue

Vernon, California

Phase	Sample ID	Map Reference ID	Map Grid	Date Sampled	Concrete Removal Area or Grid	Soil Removal Area	Associated Structure Number	Status	Sample Matrix	Sample Depth - Bottom (feet bls)	Sample Elevation	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium, Total	Cobalt	Copper	Lead and Compounds (inorganic)	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury	Remarks	Depth Remarks	
5	#1249	#1249	666	7/15/2014	NA	NA	NA	V	so	2.5	175.5	<0.754	<0.754	143	0.387	<0.503	17.5	11.7	21.7	13.3	<0.251	13.4	<0.754	<0.251	<0.754	37.6	78.7	<0.0833	Verifaicon sample for southern extent of metals impacted area	NA	
5	#1332	#1332	667	8/4/2014	NA	NA	NA	E	so	3	175	<0.743	11.3	205	0.323	1.23	25.3	15.3	109	197	1.24	29.7	<0.743	<0.248	<0.743	32.1	386	0.358	Verification sample beneath beneath RCRA Stockpile	NA	
5	#1332	#1332-5	667	8/11/2014	NA	NA	NA	V	so	5	173	<0.75	1.62	74.6	0.251	<0.5	16.1	9.42	16.2	1.56	<0.25	14	<0.75	<0.25	<0.75	25.5	42.4	<0.0833	Verification sample for removal of #1332	NA	
5	#1333	#1333	658	8/4/2014	NA	NA	NA	V	so	3	175	<0.743	5.08	159	0.347	<0.495	17.2	13.4	46.9	35.5	0.288	42.6	<0.743	<0.248	<0.743	37.4	129	<0.0794	Verification sample beneath RCRA Stockpile	NA	
5	908-V-P/S-O-001	908-S-001	585	6/10/2014	NA	NA	908	D	ot	NA	1177	2.2	25	559	<0.254	16	113	30.7	4620	1390	27.6	91.8	<0.761	1	<0.761	38.6	3310	0.167	Black, oily sediment within structure	NA	
Stockpile Samples																															
5	#1067	#1067	0	5/29/2014	NA	NA	NA	D	so	NA	0	<0.739UJ	12.7	153	<0.246	<0.493	41.6	14.2	117	161	0.629	113	<0.739	<0.246	<0.739	23J+	266	0.155	Stockpile sample of material removed from debris pit	NA	
5	#1069	#1069	0	5/29/2014	NA	NA	NA	D	so	NA	0	<0.746UJ	2.67	166	0.356	<0.498	20.8	11.9	108	109	0.398	21.6	<0.746	<0.249	<0.746	33.4J+	166	0.153	Stockpile sample of material from debris pit, brownish soil	NA	
5	#1073	#1073	0	5/29/2014	NA	NA	NA	D	so	NA	0	2050J-	32.8	202	<0.249	<0.498	21.5	9.66	198	16100	1.29	25.2	<0.746	0.617	<0.746	27.3J+	389	0.297	Stockpile sample from debris pit containing glass and brick layer	NA	
5	#1228	#1228	0	7/2/2014	NA	NA	NA	D	so	NA	0	<0.743	<0.743	30.3	0.386	<0.495	5.5	2.67	32.1	25.5	0.348	12.3	<0.743	0.571	<0.743	5.93	47.6	<0.0833	Parcel 6, white material from stockpile	NA	

Note

1. Other (ot) samples are shown on Figure 5. Soil (so) samples are shown on Figures 4 and 5.

Abbreviations

so = soil

ot = other type of sample

< = not detected at the stated reporting limit

-- = not analyzed

NA = not applicable

feet bls = feet below slab/surface

J = estimated concentration

J+ = estimated concentration potentially biased high

J- = estimated concentration potentially biased low

UJ = analyte was not detected at a level greater than or equal to the adjusted reporting limit, however, the reported adjusted reporting limit is approximate

D = disposed

E = excavated

V = verification

V/E = verification sample but excavated

TABLE 6

QUANTITIES OF MATERIALS REMOVED FROM THE FACILITY

Phase V Area - Pechiney Cast Plate, Inc. Facility

3200 Fruitland Avenue
Vernon, California

Waste Contents¹	Type of Waste²	Quantity³	Quantity Units	Disposal Facility	Location
Asphalt	Non-Hazardous Waste Solid	2969	tons	Kelterite Corporation; Nu-Way Arrow Land Reclamation	California
Ballast	Non-Hazardous Waste Solid	1981	tons	Chiquita Canyon Landfill	California
PCB-Impacted Concrete	TSCA-Hazardous Waste, PCBs, Solid ⁴	461	tons	US Ecology	Nevada
Lead-Impacted Soil	Non-RCRA Hazardous Waste Solid	4105	tons	South Yuma County Landfill	Arizona
Lead-Impacted Soil	RCRA Hazardous Waste	737	tons	US Ecology	Nevada
Railroad Ties	Non-Hazardous Waste Solid	80	tons	Simi Valley Landfill	California

Notes

1. Waste stream generated during below grade demolition and soil removal activities.
2. Federal and/or California Waste Category.
3. Quantities are approximate. Final quantities will be provided in the last completion report.
4. Bulk PCB Remediation Waste.

Abbreviations

TSCA = Toxic Substances Control Act

RCRA = Resource Conservation and Recovery Act

PCBs = polychlorinated biphenyls

FIGURES

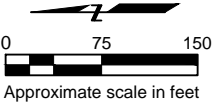
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Drawing Path: Y:\10627.003\Acad\Reports\2015\EPA And Completion Figures\Phase V Data Report.tb_Site Plan.dwg, Phases I



Explanation

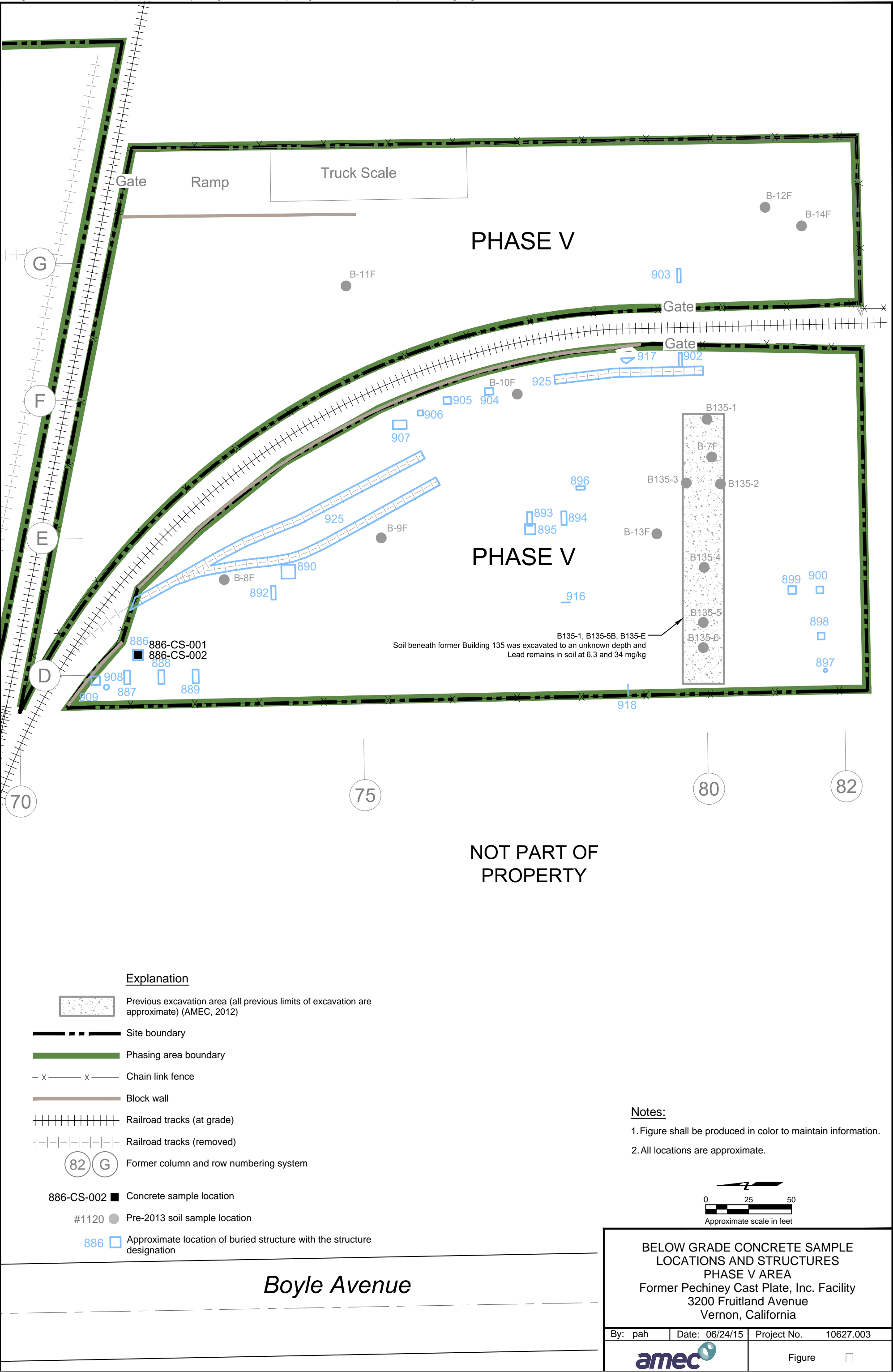
- Site boundary
- Phase I boundary
- Phasing area boundary
- Chain link fence
- Railroad tracks (at grade)
- Railroad tracks (removed)
- Former building pad and footings
- Former column and row numbering system for footings

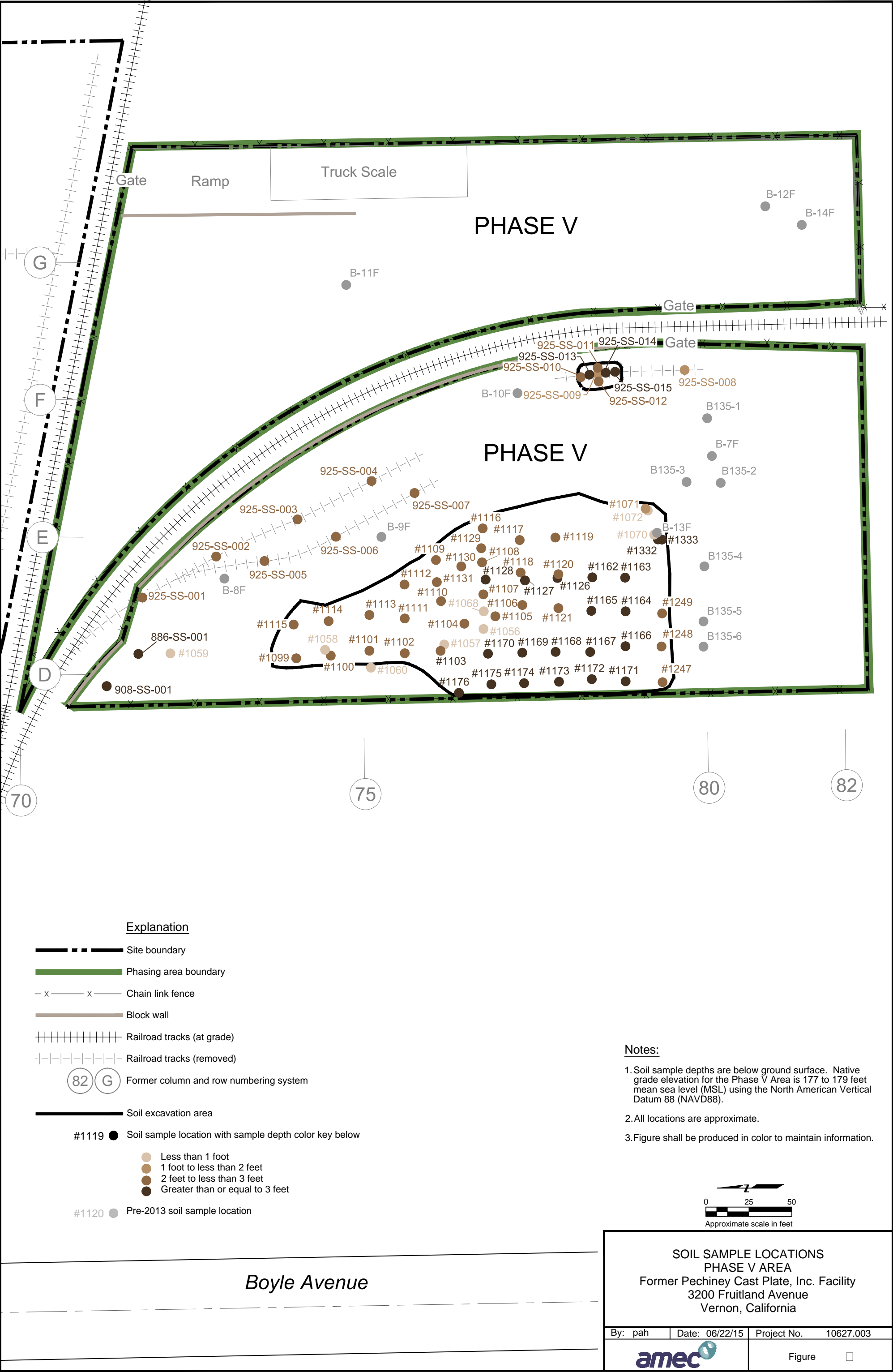
Note:
All locations are approximate.

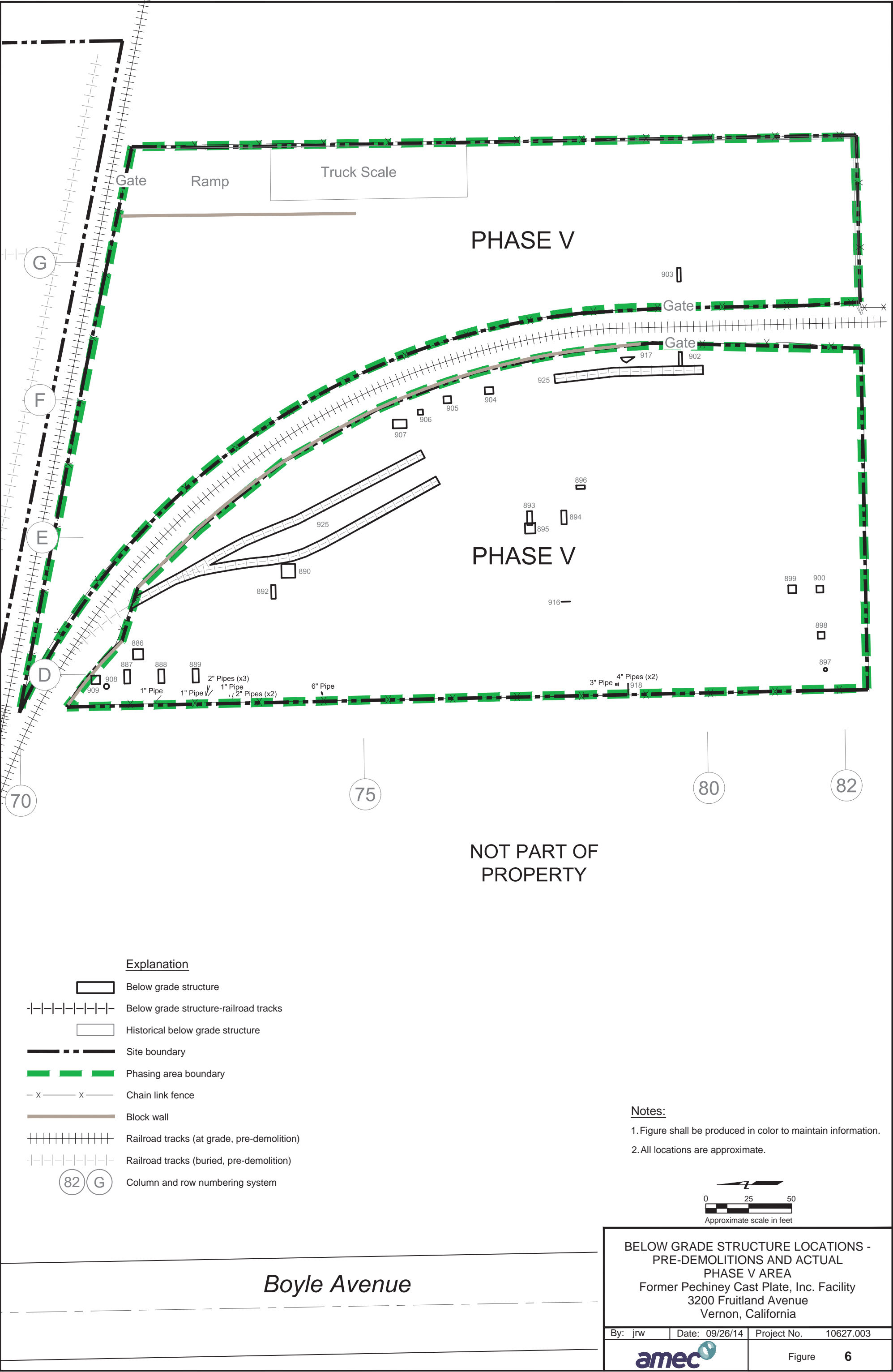


Basemap modified from Pechiney Cast Plate, Inc. Site Plan dated January 9, 2002;
Aluminum Company of America "Works General-MPA" Figure dated October 10, 1984;
Los Angeles County Assessor's Office Parcel Map 6310/Sheet 8 dated November 5, 1958;
surveys conducted May 31, 2006 and June 6, 2006 by CalVada Surveyors; and surveys
conducted October 12, 2011 and September 10, 2013 by Dulin & Boynton.

SITE PLAN PHASE V AREA Former Pechiney Cast Plate, Inc. Facility 3200 Fruitland Avenue Vernon, California		
By: pah	Date: 06/22/15	Project No. 10627.003
		Figure <input type="checkbox"/>







LEGEND

- REMOVED PIPE
- 917 APPROXIMATE LOCATION OF BURIED STRUCTURE (LEFT IN PLACE)

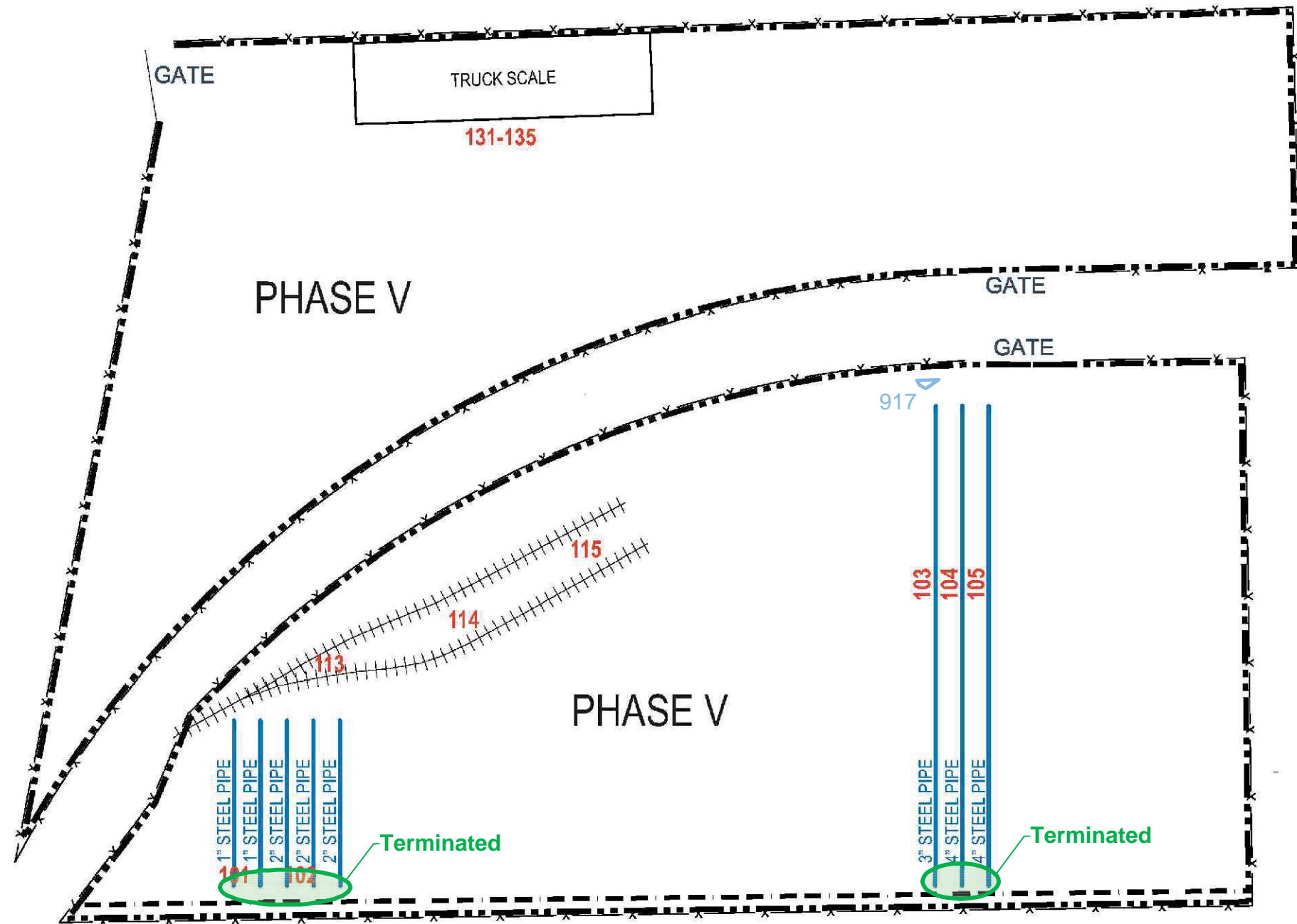


Figure 7

PHASE V - PIPE REMOVALS
BELOW GRADE DEMOLITION & SOIL EXCAVATION
PECHINEY CAST PLATE, INC., FACILITY
3200 FRUITLAND AVENUE, VERNON, CALIFORNIA



DRAWN BY: CY
APPROVED BY: CP
DATE: 09/12/14

American Integrated Services, Inc.
P.O. BOX 92316, LONG BEACH, CA 90809-2316 (310) 522-1168 FAX (310) 522-0474

APPENDIX A

Laboratory Reports and Chain-of-Custody Documentation –
Soil, Concrete and Other Media



CALSCIENCE

WORK ORDER NUMBER: 14-05-1652

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 05/23/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



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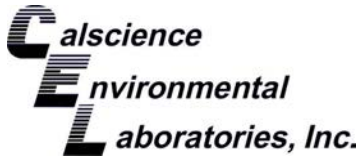
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Work Order Narrative

Work Order: 14-05-1652

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 05/21/14. They were assigned to Work Order 14-05-1652.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the CalScience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

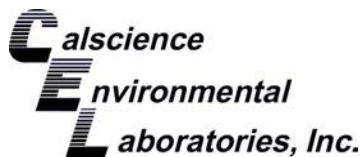
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

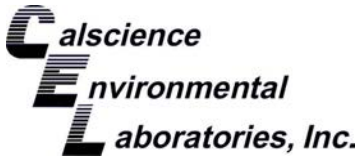
Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1652
Project Name: Former Pechiney Cast Plate Facility / 0106270030
PO Number:
Date/Time Received: 05/21/14 18:35
Number of Containers: 17

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1047	14-05-1652-1	05/21/14 08:01	1	Solid
#1048	14-05-1652-2	05/21/14 08:02	1	Solid
#1049	14-05-1652-3	05/21/14 08:03	1	Solid
#1050	14-05-1652-4	05/21/14 08:05	1	Solid
#1051	14-05-1652-5	05/21/14 08:06	1	Solid
#1052-15	14-05-1652-6	05/21/14 09:50	1	Solid
#1053-15	14-05-1652-7	05/21/14 10:04	1	Solid
#1054-13.5	14-05-1652-8	05/21/14 10:15	1	Solid
#1055-13.5	14-05-1652-9	05/21/14 10:26	1	Solid
DC-429	14-05-1652-10	05/21/14 11:47	1	Other
885-IV-R/R-SS-001	14-05-1652-11	05/21/14 13:13	1	Solid
885-IV-R/R-SS-002	14-05-1652-12	05/21/14 13:16	1	Solid
885-IV-R/R-SS-003	14-05-1652-13	05/21/14 13:19	1	Solid
885-IV-R/R-SS-004	14-05-1652-14	05/21/14 13:22	1	Solid
885-IV-R/R-SS-005	14-05-1652-15	05/21/14 13:25	1	Solid
885-IV-R/R-SS-006	14-05-1652-16	05/21/14 13:29	1	Solid
885-IV-R/R-SS-007	14-05-1652-17	05/21/14 13:31	1	Solid

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Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1652
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 05/21/14

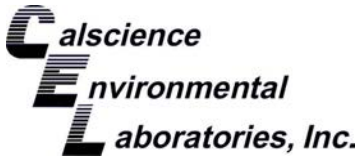
Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1047 (14-05-1652-1)						
Arsenic	5.64		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	128		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.458		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	25.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	11.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.354		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	843		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0969		0.0847	mg/kg	EPA 7471A	EPA 7471A Total
#1048 (14-05-1652-2)						
Arsenic	95.9		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	134		0.508	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.413		0.254	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.2		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.3		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	29.5		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	17.9		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.3		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.2		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	87.7		1.02	mg/kg	EPA 6010B	EPA 3050B
#1049 (14-05-1652-3)						
Arsenic	28.9		0.781	mg/kg	EPA 6010B	EPA 3050B
Barium	110		0.521	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.352		0.260	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.7		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.5		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	25.7		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	33.8		0.521	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.6		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	34.2		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	136		1.04	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1652
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 05/21/14

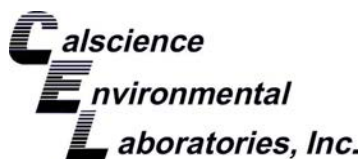
Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1050 (14-05-1652-4)						
Arsenic	1.79		0.765	mg/kg	EPA 6010B	EPA 3050B
Barium	145		0.510	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.502		0.255	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.4		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.1		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	21.2		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	2.45		0.510	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.386		0.255	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.3		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	39.5		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	57.6		1.02	mg/kg	EPA 6010B	EPA 3050B
#1051 (14-05-1652-5)						
Arsenic	13.9		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	115		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.391		0.253	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.3		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.1		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	51.8		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	31.0		0.505	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.7		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.8		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	167		1.01	mg/kg	EPA 6010B	EPA 3050B
#1052-15 (14-05-1652-6)						
Aroclor-1248	200		50	ug/kg	EPA 8082	EPA 3540C
#1053-15 (14-05-1652-7)						
Aroclor-1248	1200		250	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	50		50	ug/kg	EPA 8082	EPA 3540C
#1054-13.5 (14-05-1652-8)						
Aroclor-1248	780		51	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	53		51	ug/kg	EPA 8082	EPA 3540C
#1055-13.5 (14-05-1652-9)						
Aroclor-1248	140		51	ug/kg	EPA 8082	EPA 3540C
DC-429 (14-05-1652-10)						
Aroclor-1248	4300000		500000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	270000		50000	ug/kg	EPA 8082	EPA 3540C

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1652
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 05/21/14

Attn: Linda Conlan

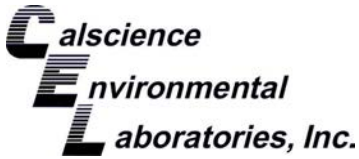
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
885-IV-R/R-SS-001 (14-05-1652-11)						
Arsenic	11.2		0.732	mg/kg	EPA 6010B	EPA 3050B
Barium	112		0.488	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.302		0.244	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.6		0.244	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.87		0.244	mg/kg	EPA 6010B	EPA 3050B
Copper	24.9		0.488	mg/kg	EPA 6010B	EPA 3050B
Lead	44.9		0.488	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.4		0.244	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.1		0.244	mg/kg	EPA 6010B	EPA 3050B
Zinc	115		0.976	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	61		50	ug/kg	EPA 8082	EPA 3540C
885-IV-R/R-SS-002 (14-05-1652-12)						
Arsenic	2.59		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	126		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.357		0.253	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.772		0.505	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.8		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.4		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	23.1		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	26.0		0.505	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.3		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.6		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	221		1.01	mg/kg	EPA 6010B	EPA 3050B

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* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1652
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 05/21/14

Attn: Linda Conlan

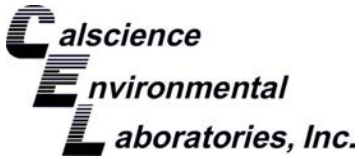
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
885-IV-R/R-SS-003 (14-05-1652-13)						
Arsenic	6.35		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	118		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.597		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	101		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.59		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	375		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	43.8		0.495	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.548		0.248	mg/kg	EPA 6010B	EPA 3050B
Nickel	21.6		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.7		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	929		0.990	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0832		0.0806	mg/kg	EPA 7471A	EPA 7471A Total
C25-C28	6.8		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	16		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	16		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	10		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	60		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1248	510		50	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	430		50	ug/kg	EPA 8082	EPA 3540C
Aroclor-1268	85		50	ug/kg	EPA 8082	EPA 3540C

Return to Contents

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1652
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 05/21/14

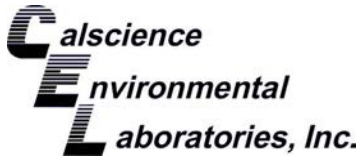
Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
885-IV-R/R-SS-004 (14-05-1652-14)						
Arsenic	4.43		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	129		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.352		0.253	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.2		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.0		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	26.2		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	41.3		0.505	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.331		0.253	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.0		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.2		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	152		1.01	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0911		0.0847	mg/kg	EPA 7471A	EPA 7471A Total
C15-C16	5.4		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	7.3		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	12		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	11		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	55		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
885-IV-R/R-SS-005 (14-05-1652-15)						
Arsenic	5.60		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	122		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.374		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	63.6		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	11.1		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	182		1.00	mg/kg	EPA 6010B	EPA 3050B
C29-C32	6.0		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	6.4		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	17		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1260	61		50	ug/kg	EPA 8082	EPA 3540C

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1652
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 05/21/14

Attn: Linda Conlan

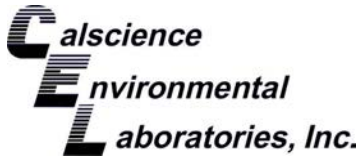
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
885-IV-R/R-SS-006 (14-05-1652-16)						
Arsenic	4.50		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	105		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.303		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.5		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.0		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	15.3		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	1.54		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.2		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	30.2		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	50.0		0.990	mg/kg	EPA 6010B	EPA 3050B
885-IV-R/R-SS-007 (14-05-1652-17)						
Arsenic	21.9		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	176		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.390		0.238	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.2		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.6		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	42.8		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	175		0.476	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.1		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	36.6		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	248		0.952	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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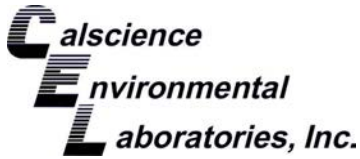
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-001	14-05-1652-11-A	05/21/14 13:13	Solid	GC 49	05/22/14	05/22/14 13:41	140522B01

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	75	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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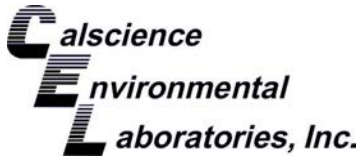
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-002	14-05-1652-12-A	05/21/14 13:16	Solid	GC 49	05/22/14	05/22/14 13:57	140522B01

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-003	14-05-1652-13-A	05/21/14 13:19	Solid	GC 49	05/22/14	05/22/14 14:14	140522B01

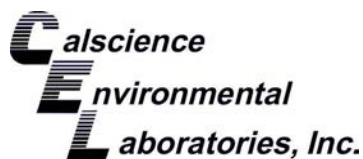
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	6.8	5.0	1.00	
C29-C32	16	5.0	1.00	
C33-C36	16	5.0	1.00	
C37-C40	10	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	60	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	98	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-004	14-05-1652-14-A	05/21/14 13:22	Solid	GC 49	05/22/14	05/22/14 14:31	140522B01

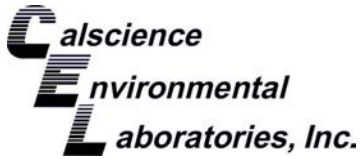
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	5.4	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	7.3	5.0	1.00	
C29-C32	12	5.0	1.00	
C33-C36	11	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	55	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	109	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-005	14-05-1652-15-A	05/21/14 13:25	Solid	GC 49	05/22/14	05/22/14 14:48	140522B01

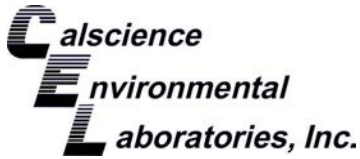
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	6.0	5.0	1.00	
C33-C36	6.4	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	17	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	110	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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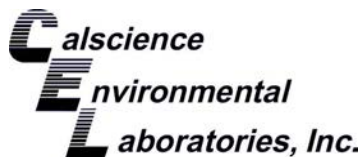
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885-IV-R/R-SS-006	14-05-1652-16-A	05/21/14 13:29	Solid	GC 49	05/22/14	05/22/14 15:05	140522B01

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	108	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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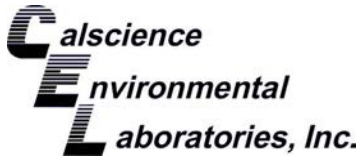
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-007	14-05-1652-17-A	05/21/14 13:31	Solid	GC 49	05/22/14	05/22/14 15:21	140522B01

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	132	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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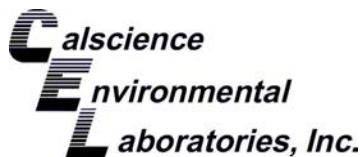
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Method Blank	099-15-490-920	N/A	Solid	GC 49	05/22/14	05/22/14 12:19	140522B01

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

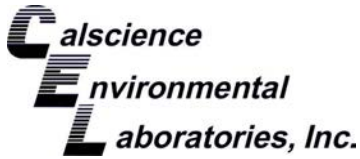
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1047	14-05-1652-1-A	05/21/14 08:01	Solid	ICP 7300	05/21/14	05/22/14 12:05	140521L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	5.64	0.750	1.00	
Barium	128	0.500	1.00	
Beryllium	0.458	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	17.9	0.250	1.00	
Cobalt	11.9	0.250	1.00	
Copper	25.4	0.500	1.00	
Lead	11.0	0.500	1.00	
Molybdenum	0.354	0.250	1.00	
Nickel	13.3	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	38.4	0.250	1.00	
Zinc	843	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

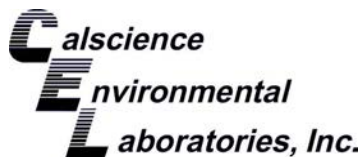
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1048	14-05-1652-2-A	05/21/14 08:02	Solid	ICP 7300	05/21/14	05/22/14 12:10	140521L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	95.9	0.761	1.02	
Barium	134	0.508	1.02	
Beryllium	0.413	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	19.2	0.254	1.02	
Cobalt	12.3	0.254	1.02	
Copper	29.5	0.508	1.02	
Lead	17.9	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	14.3	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	38.2	0.254	1.02	
Zinc	87.7	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

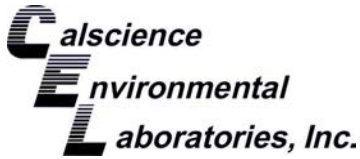
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1049	14-05-1652-3-A	05/21/14 08:03	Solid	ICP 7300	05/21/14	05/22/14 12:11	140521L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.781	1.04	
Arsenic	28.9	0.781	1.04	
Barium	110	0.521	1.04	
Beryllium	0.352	0.260	1.04	
Cadmium	ND	0.521	1.04	
Chromium	17.7	0.260	1.04	
Cobalt	10.5	0.260	1.04	
Copper	25.7	0.521	1.04	
Lead	33.8	0.521	1.04	
Molybdenum	ND	0.260	1.04	
Nickel	12.6	0.260	1.04	
Selenium	ND	0.781	1.04	
Silver	ND	0.260	1.04	
Thallium	ND	0.781	1.04	
Vanadium	34.2	0.260	1.04	
Zinc	136	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

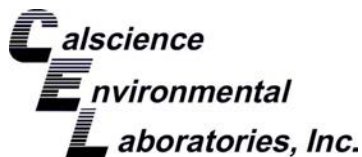
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1050	14-05-1652-4-A	05/21/14 08:05	Solid	ICP 7300	05/21/14	05/22/14 12:12	140521L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	1.79	0.765	1.02	
Barium	145	0.510	1.02	
Beryllium	0.502	0.255	1.02	
Cadmium	ND	0.510	1.02	
Chromium	17.4	0.255	1.02	
Cobalt	12.1	0.255	1.02	
Copper	21.2	0.510	1.02	
Lead	2.45	0.510	1.02	
Molybdenum	0.386	0.255	1.02	
Nickel	13.3	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	39.5	0.255	1.02	
Zinc	57.6	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

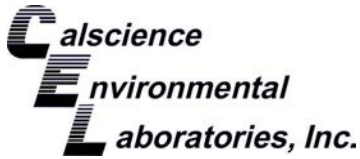
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1051	14-05-1652-5-A	05/21/14 08:06	Solid	ICP 7300	05/21/14	05/22/14 12:13	140521L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	13.9	0.758	1.01	
Barium	115	0.505	1.01	
Beryllium	0.391	0.253	1.01	
Cadmium	ND	0.505	1.01	
Chromium	18.3	0.253	1.01	
Cobalt	10.1	0.253	1.01	
Copper	51.8	0.505	1.01	
Lead	31.0	0.505	1.01	
Molybdenum	ND	0.253	1.01	
Nickel	13.7	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	32.8	0.253	1.01	
Zinc	167	1.01	1.01	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

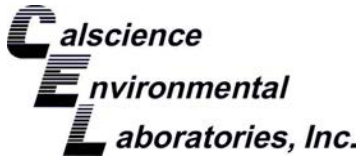
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-001	14-05-1652-11-A	05/21/14 13:13	Solid	ICP 7300	05/21/14	05/22/14 12:26	140521L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.732	0.976	
Arsenic	11.2	0.732	0.976	
Barium	112	0.488	0.976	
Beryllium	0.302	0.244	0.976	
Cadmium	ND	0.488	0.976	
Chromium	17.6	0.244	0.976	
Cobalt	9.87	0.244	0.976	
Copper	24.9	0.488	0.976	
Lead	44.9	0.488	0.976	
Molybdenum	ND	0.244	0.976	
Nickel	11.4	0.244	0.976	
Selenium	ND	0.732	0.976	
Silver	ND	0.244	0.976	
Thallium	ND	0.732	0.976	
Vanadium	32.1	0.244	0.976	
Zinc	115	0.976	0.976	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

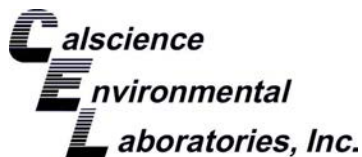
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-002	14-05-1652-12-A	05/21/14 13:16	Solid	ICP 7300	05/21/14	05/22/14 12:14	140521L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	2.59	0.758	1.01	
Barium	126	0.505	1.01	
Beryllium	0.357	0.253	1.01	
Cadmium	0.772	0.505	1.01	
Chromium	17.8	0.253	1.01	
Cobalt	11.4	0.253	1.01	
Copper	23.1	0.505	1.01	
Lead	26.0	0.505	1.01	
Molybdenum	ND	0.253	1.01	
Nickel	12.3	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	35.6	0.253	1.01	
Zinc	221	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

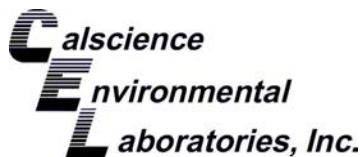
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-003	14-05-1652-13-A	05/21/14 13:19	Solid	ICP 7300	05/21/14	05/22/14 12:15	140521L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	6.35	0.743	0.990	
Barium	118	0.495	0.990	
Beryllium	0.597	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	101	0.248	0.990	
Cobalt	9.59	0.248	0.990	
Copper	375	0.495	0.990	
Lead	43.8	0.495	0.990	
Molybdenum	0.548	0.248	0.990	
Nickel	21.6	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	31.7	0.248	0.990	
Zinc	929	0.990	0.990	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

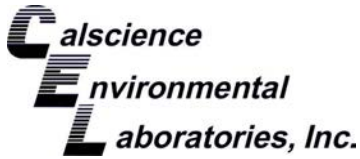
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-004	14-05-1652-14-A	05/21/14 13:22	Solid	ICP 7300	05/21/14	05/22/14 12:16	140521L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	4.43	0.758	1.01	
Barium	129	0.505	1.01	
Beryllium	0.352	0.253	1.01	
Cadmium	ND	0.505	1.01	
Chromium	16.2	0.253	1.01	
Cobalt	11.0	0.253	1.01	
Copper	26.2	0.505	1.01	
Lead	41.3	0.505	1.01	
Molybdenum	0.331	0.253	1.01	
Nickel	13.0	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	35.2	0.253	1.01	
Zinc	152	1.01	1.01	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

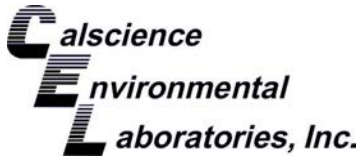
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-005	14-05-1652-15-A	05/21/14 13:25	Solid	ICP 7300	05/21/14	05/22/14 12:17	140521L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	5.60	0.750	1.00	
Barium	122	0.500	1.00	
Beryllium	0.374	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	19.0	0.250	1.00	
Cobalt	10.8	0.250	1.00	
Copper	63.6	0.500	1.00	
Lead	11.1	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	12.2	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	32.3	0.250	1.00	
Zinc	182	1.00	1.00	

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AMEC Environment & Infrastructure
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Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

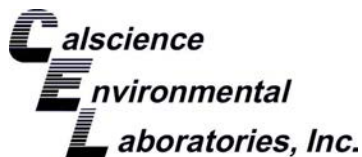
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-006	14-05-1652-16-A	05/21/14 13:29	Solid	ICP 7300	05/21/14	05/22/14 12:18	140521L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	4.50	0.743	0.990	
Barium	105	0.495	0.990	
Beryllium	0.303	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	13.5	0.248	0.990	
Cobalt	10.0	0.248	0.990	
Copper	15.3	0.495	0.990	
Lead	1.54	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	10.2	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	30.2	0.248	0.990	
Zinc	50.0	0.990	0.990	

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AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

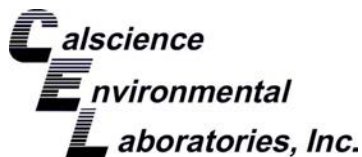
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-007	14-05-1652-17-A	05/21/14 13:31	Solid	ICP 7300	05/21/14	05/22/14 12:19	140521L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	21.9	0.714	0.952	
Barium	176	0.476	0.952	
Beryllium	0.390	0.238	0.952	
Cadmium	ND	0.476	0.952	
Chromium	19.2	0.238	0.952	
Cobalt	11.6	0.238	0.952	
Copper	42.8	0.476	0.952	
Lead	175	0.476	0.952	
Molybdenum	ND	0.238	0.952	
Nickel	14.1	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	36.6	0.238	0.952	
Zinc	248	0.952	0.952	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

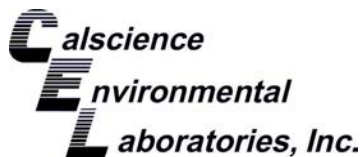
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18404	N/A	Solid	ICP 7300	05/21/14	05/22/14 11:54	140521L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

Return to Contents

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Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

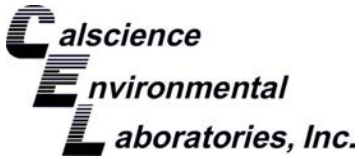
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18405	N/A	Solid	ICP 7300	05/21/14	05/22/14 11:55	140521L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

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Analytical Report

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Irvine, CA 92617-3094

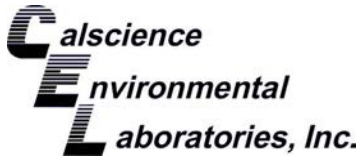
Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1047	14-05-1652-1-A	05/21/14 08:01	Solid	Mercury 05	05/21/14	05/22/14 12:29	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.0969	0.0847	1.00			
#1048	14-05-1652-2-A	05/21/14 08:02	Solid	Mercury 05	05/21/14	05/22/14 12:31	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			
#1049	14-05-1652-3-A	05/21/14 08:03	Solid	Mercury 05	05/21/14	05/22/14 12:33	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			
#1050	14-05-1652-4-A	05/21/14 08:05	Solid	Mercury 05	05/21/14	05/22/14 12:35	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			
#1051	14-05-1652-5-A	05/21/14 08:06	Solid	Mercury 05	05/21/14	05/22/14 12:38	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
885-IV-R/R-SS-001	14-05-1652-11-A	05/21/14 13:13	Solid	Mercury 05	05/21/14	05/22/14 12:40	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0794	1.00			
885-IV-R/R-SS-002	14-05-1652-12-A	05/21/14 13:16	Solid	Mercury 05	05/21/14	05/22/14 12:42	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0877	1.00			
885-IV-R/R-SS-003	14-05-1652-13-A	05/21/14 13:19	Solid	Mercury 05	05/21/14	05/22/14 12:44	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.0832	0.0806	1.00			

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Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

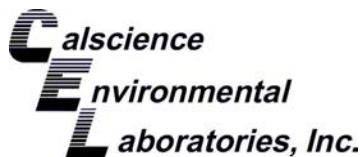
Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-004	14-05-1652-14-A	05/21/14 13:22	Solid	Mercury 05	05/21/14	05/22/14 12:47	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Mercury		0.0911	0.0847		1.00		
885-IV-R/R-SS-005	14-05-1652-15-A	05/21/14 13:25	Solid	Mercury 05	05/21/14	05/22/14 11:33	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Mercury		ND	0.0833		1.00		
885-IV-R/R-SS-006	14-05-1652-16-A	05/21/14 13:29	Solid	Mercury 05	05/21/14	05/22/14 12:49	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Mercury		ND	0.0794		1.00		
885-IV-R/R-SS-007	14-05-1652-17-A	05/21/14 13:31	Solid	Mercury 05	05/21/14	05/22/14 12:56	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Mercury		ND	0.0847		1.00		
Method Blank	099-16-272-248	N/A	Solid	Mercury 05	05/21/14	05/22/14 11:24	140521L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Mercury		ND	0.0833		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1052-15	14-05-1652-6-A	05/21/14 09:50	Solid	GC 31	05/21/14	05/23/14 11:54	140521L20

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	200	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

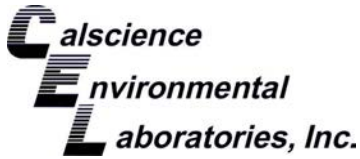
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	115	60-125	
2,4,5,6-Tetrachloro-m-Xylene	124	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1053-15	14-05-1652-7-A	05/21/14 10:04	Solid	GC 31	05/21/14	05/23/14 12:13	140521L20

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	50	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	111	60-125	
2,4,5,6-Tetrachloro-m-Xylene	121	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
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Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1053-15	14-05-1652-7-A	05/21/14 10:04	Solid	GC 31	05/21/14	05/23/14 16:21	140521L20

Parameter	Result	RL	DF	Qualifiers
Aroclor-1248	1200	250	5.00	

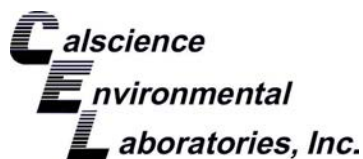
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	110	60-125	
2,4,5,6-Tetrachloro-m-Xylene	106	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1054-13.5	14-05-1652-8-A	05/21/14 10:15	Solid	GC 31	05/21/14	05/23/14 12:33	140521L20

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	51	1.00	
Aroclor-1221	ND	51	1.00	
Aroclor-1232	ND	51	1.00	
Aroclor-1242	ND	51	1.00	
Aroclor-1248	780	51	1.00	
Aroclor-1254	ND	51	1.00	
Aroclor-1260	53	51	1.00	
Aroclor-1262	ND	51	1.00	
Aroclor-1268	ND	51	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	60-125	
2,4,5,6-Tetrachloro-m-Xylene	124	50-130	

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Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 3 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1055-13.5	14-05-1652-9-A	05/21/14 10:26	Solid	GC 31	05/21/14	05/23/14 12:52	140521L20

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	51	1.00	
Aroclor-1221	ND	51	1.00	
Aroclor-1232	ND	51	1.00	
Aroclor-1242	ND	51	1.00	
Aroclor-1248	140	51	1.00	
Aroclor-1254	ND	51	1.00	
Aroclor-1260	ND	51	1.00	
Aroclor-1262	ND	51	1.00	
Aroclor-1268	ND	51	1.00	

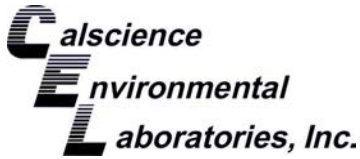
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	116	60-125	
2,4,5,6-Tetrachloro-m-Xylene	124	50-130	

DC-429	14-05-1652-10-A	05/21/14 11:47	Other	GC 31	05/21/14	05/23/14 13:11	140521L20
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50000	1000	
Aroclor-1221	ND	50000	1000	
Aroclor-1232	ND	50000	1000	
Aroclor-1242	ND	50000	1000	
Aroclor-1254	ND	50000	1000	
Aroclor-1260	270000	50000	1000	
Aroclor-1262	ND	50000	1000	
Aroclor-1268	ND	50000	1000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	330	60-125	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	100	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Work Order: 14-05-1652
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DC-429	14-05-1652-10-A	05/21/14 11:47	Other	GC 31	05/21/14	05/23/14 16:02	140521L20

Parameter	Result	RL	DF	Qualifiers
Aroclor-1248	4300000	500000	10000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	6200	60-125	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	0	50-130	1,2,6

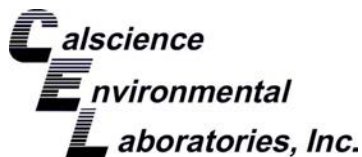
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-001	14-05-1652-11-A	05/21/14 13:13	Solid	GC 31	05/21/14	05/23/14 13:30	140521L20

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	61	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	110	60-125	
2,4,5,6-Tetrachloro-m-Xylene	119	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-002	14-05-1652-12-A	05/21/14 13:16	Solid	GC 31	05/21/14	05/23/14 13:49	140521L20

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

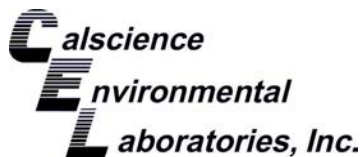
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	60-125	
2,4,5,6-Tetrachloro-m-Xylene	115	50-130	

885-IV-R/R-SS-003	14-05-1652-13-A	05/21/14 13:19	Solid	GC 31	05/21/14	05/23/14 14:08	140521L20
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	510	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	430	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	85	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	114	60-125	
2,4,5,6-Tetrachloro-m-Xylene	117	50-130	

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Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-004	14-05-1652-14-A	05/21/14 13:22	Solid	GC 31	05/21/14	05/23/14 14:27	140521L20

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

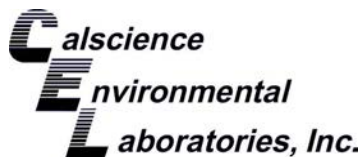
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	108	60-125	
2,4,5,6-Tetrachloro-m-Xylene	120	50-130	

885-IV-R/R-SS-005	14-05-1652-15-A	05/21/14 13:25	Solid	GC 31	05/21/14	05/23/14 14:46	140521L20
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	61	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	96	60-125	
2,4,5,6-Tetrachloro-m-Xylene	109	50-130	

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Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
885-IV-R/R-SS-006	14-05-1652-16-A	05/21/14 13:29	Solid	GC 31	05/21/14	05/23/14 15:05	140521L20

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

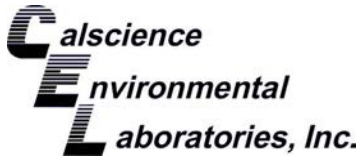
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	107	60-125	
2,4,5,6-Tetrachloro-m-Xylene	121	50-130	

885-IV-R/R-SS-007	14-05-1652-17-A	05/21/14 13:31	Solid	GC 31	05/21/14	05/23/14 15:24	140521L20
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	110	60-125	
2,4,5,6-Tetrachloro-m-Xylene	118	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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AMEC Environment & Infrastructure
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Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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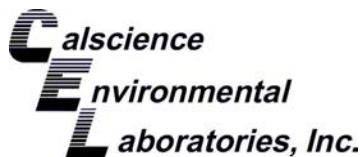
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Method Blank	099-02-003-254	N/A	Solid	GC 31	05/21/14	05/23/14 10:57	140521L20

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	111	60-125	
2,4,5,6-Tetrachloro-m-Xylene	118	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate Facility / 0106270030

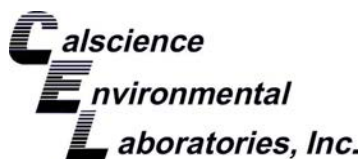
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-05-1645-1	Sample	Solid	GC 49	05/22/14	05/22/14 13:24	140522S01
14-05-1645-1	Matrix Spike	Solid	GC 49	05/22/14	05/22/14 12:52	140522S01
14-05-1645-1	Matrix Spike Duplicate	Solid	GC 49	05/22/14	05/22/14 13:08	140522S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	32.75	400.0	402.4	92	298.1	66	64-130	30	0-15	4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B

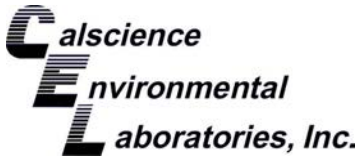
Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
14-05-1580-1	Sample	Solid	ICP 7300	05/21/14	05/21/14 19:40	140521S03				
14-05-1580-1	Matrix Spike	Solid	ICP 7300	05/21/14	05/21/14 19:45	140521S03				
14-05-1580-1	Matrix Spike Duplicate	Solid	ICP 7300	05/21/14	05/21/14 19:46	140521S03				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	10.12	40	9.055	36	50-115	11	0-20	3
Arsenic	3.286	25.00	26.78	94	27.92	99	75-125	4	0-20	
Barium	105.4	25.00	124.9	4X	145.3	4X	75-125	4X	0-20	Q
Beryllium	ND	25.00	25.96	104	25.59	102	75-125	1	0-20	
Cadmium	2.710	25.00	27.54	99	27.37	99	75-125	1	0-20	
Chromium	9.996	25.00	34.08	96	35.31	101	75-125	4	0-20	
Cobalt	7.996	25.00	33.76	103	34.11	104	75-125	1	0-20	
Copper	34.90	25.00	58.14	93	62.38	110	75-125	7	0-20	
Lead	276.7	25.00	283.4	4X	312.7	4X	75-125	4X	0-20	Q
Molybdenum	0.3395	25.00	25.26	100	24.74	98	75-125	2	0-20	
Nickel	11.06	25.00	35.18	96	36.75	103	75-125	4	0-20	
Selenium	ND	25.00	22.44	90	20.89	84	75-125	7	0-20	
Silver	ND	12.50	12.61	101	12.42	99	75-125	2	0-20	
Thallium	ND	25.00	20.02	80	18.52	74	75-125	8	0-20	3
Vanadium	26.76	25.00	48.91	89	52.63	103	75-125	7	0-20	
Zinc	404.4	25.00	179.0	4X	205.9	4X	75-125	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B

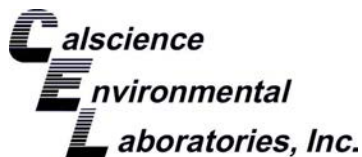
Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
885-IV-R/R-SS-005	Sample	Solid	ICP 7300	05/21/14	05/22/14 12:17	140521S04				
885-IV-R/R-SS-005	Matrix Spike	Solid	ICP 7300	05/21/14	05/22/14 12:03	140521S04				
885-IV-R/R-SS-005	Matrix Spike Duplicate	Solid	ICP 7300	05/21/14	05/22/14 12:04	140521S04				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	8.118	32	8.971	36	50-115	10	0-20	3
Arsenic	5.602	25.00	34.84	117	31.05	102	75-125	12	0-20	
Barium	121.5	25.00	146.2	4X	148.0	4X	75-125	4X	0-20	Q
Beryllium	0.3737	25.00	26.76	106	26.24	103	75-125	2	0-20	
Cadmium	ND	25.00	25.88	104	28.88	116	75-125	11	0-20	
Chromium	19.00	25.00	44.54	102	44.80	103	75-125	1	0-20	
Cobalt	10.79	25.00	37.14	105	36.81	104	75-125	1	0-20	
Copper	63.58	25.00	100.3	147	102.6	156	75-125	2	0-20	3
Lead	11.11	25.00	41.88	123	38.22	108	75-125	9	0-20	
Molybdenum	ND	25.00	25.38	102	25.18	101	75-125	1	0-20	
Nickel	12.17	25.00	37.75	102	37.49	101	75-125	1	0-20	
Selenium	ND	25.00	21.47	86	20.27	81	75-125	6	0-20	
Silver	ND	12.50	13.01	104	12.82	103	75-125	1	0-20	
Thallium	ND	25.00	20.93	84	19.24	77	75-125	8	0-20	
Vanadium	32.29	25.00	58.35	104	58.61	105	75-125	0	0-20	
Zinc	181.9	25.00	190.3	4X	208.2	4X	75-125	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

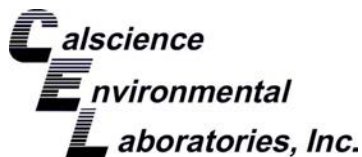
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
885-IV-R/R-SS-005	Sample	Solid	Mercury 05	05/21/14	05/22/14 11:33	140521S09
885-IV-R/R-SS-005	Matrix Spike	Solid	Mercury 05	05/21/14	05/22/14 11:35	140521S09
885-IV-R/R-SS-005	Matrix Spike Duplicate	Solid	Mercury 05	05/21/14	05/22/14 11:38	140521S09

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.8326	100	0.7922	95	71-137	5	0-14	

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Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
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Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

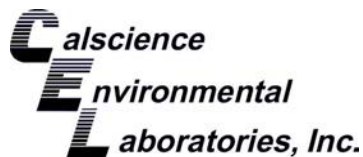
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1054-13.5	Sample	Solid	GC 31	05/21/14	05/23/14 12:33	140521S20
#1054-13.5	Matrix Spike	Solid	GC 31	05/21/14	05/23/14 11:16	140521S20
#1054-13.5	Matrix Spike Duplicate	Solid	GC 31	05/21/14	05/23/14 11:35	140521S20

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	257.6	258	247.7	248	50-135	4	0-25	3
Aroclor-1260	52.76	100.0	185.8	133	158.5	106	50-135	16	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3550B
Method: EPA 8015B (M)

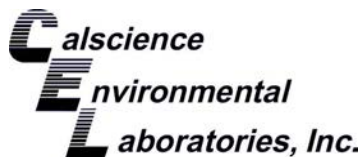
Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-920	LCS	Solid	GC 49	05/22/14	05/22/14 12:35	140522B01

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel	400.0	317.5	79	75-123	

Return to Contents



Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18404	LCS	Solid	ICP 7300	05/21/14	05/22/14 11:56	140521L03
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	25.20	101	80-120	73-127	
Arsenic	25.00	24.57	98	80-120	73-127	
Barium	25.00	24.90	100	80-120	73-127	
Beryllium	25.00	24.36	97	80-120	73-127	
Cadmium	25.00	25.76	103	80-120	73-127	
Chromium	25.00	24.70	99	80-120	73-127	
Cobalt	25.00	27.83	111	80-120	73-127	
Copper	25.00	26.60	106	80-120	73-127	
Lead	25.00	25.91	104	80-120	73-127	
Molybdenum	25.00	25.63	103	80-120	73-127	
Nickel	25.00	26.20	105	80-120	73-127	
Selenium	25.00	22.80	91	80-120	73-127	
Silver	12.50	12.67	101	80-120	73-127	
Thallium	25.00	26.73	107	80-120	73-127	
Vanadium	25.00	24.11	96	80-120	73-127	
Zinc	25.00	26.32	105	80-120	73-127	

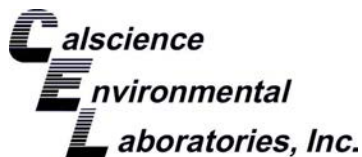
Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents



Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18405	LCS	Solid	ICP 7300	05/21/14	05/22/14 11:58	140521L04
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	25.04	100	80-120	73-127	
Arsenic	25.00	23.87	95	80-120	73-127	
Barium	25.00	25.01	100	80-120	73-127	
Beryllium	25.00	24.44	98	80-120	73-127	
Cadmium	25.00	25.79	103	80-120	73-127	
Chromium	25.00	24.84	99	80-120	73-127	
Cobalt	25.00	27.77	111	80-120	73-127	
Copper	25.00	26.56	106	80-120	73-127	
Lead	25.00	25.54	102	80-120	73-127	
Molybdenum	25.00	25.23	101	80-120	73-127	
Nickel	25.00	26.30	105	80-120	73-127	
Selenium	25.00	22.58	90	80-120	73-127	
Silver	12.50	12.67	101	80-120	73-127	
Thallium	25.00	26.18	105	80-120	73-127	
Vanadium	25.00	24.23	97	80-120	73-127	
Zinc	25.00	26.29	105	80-120	73-127	

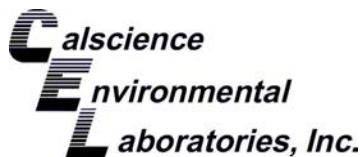
Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents



Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 7471A Total
Method: EPA 7471A

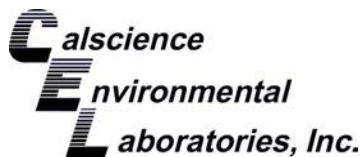
Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-248	LCS	Solid	Mercury 05	05/21/14	05/22/14 11:26	140521L09

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.8567	103	85-121	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

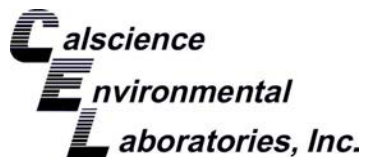
Date Received: 05/21/14
Work Order: 14-05-1652
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-02-003-254	LCS	Solid	GC 31	05/21/14	05/23/14 10:38	140521L20
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	116.4	116	50-135	
Aroclor-1260		100.0	115.3	115	60-130	

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Sample Analysis Summary Report

Work Order: 14-05-1652

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	776	Mercury 05	1
EPA 8015B (M)	EPA 3550B	628	GC 49	1
EPA 8082	EPA 3540C	669	GC 31	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-05-1652

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

NB 31341

[illegible]

WORK ORDER #: **14-05-11652**

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 05/21/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.7 °C - 0.3 °C (CF) = 2.7 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 678

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____

☐ No (Not Intact) ☒ Not Present

☐ N/A

Checked by: 678

☐ Sample ☐ _____

☐ No (Not Intact) ☒ Not Present

Checked by: 862

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	N/A
COC document(s) received complete.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

☒ Collection date, time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

	Yes	No	N/A
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	N/A
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	N/A
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	N/A
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	N/A
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Aqueous samples received within 15-minute holding time

	Yes	No	N/A
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Yes	No	N/A
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

☐ Unpreserved vials received for Volatiles analysis

	Yes	No	N/A
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Yes	No	N/A
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s

☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: 862

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 659

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: 659

* collection date per label is 5/21/14



CALSCIENCE

WORK ORDER NUMBER: 14-05-1740

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 05/27/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



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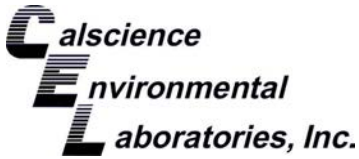
7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501 • www.calscience.com

NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

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 Work Order Number: 14-05-1740

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Work Order Narrative

Work Order: 14-05-1740

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 05/22/14. They were assigned to Work Order 14-05-1740.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the CalScience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

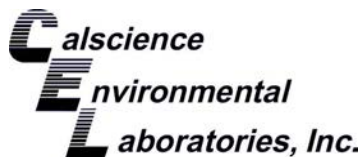
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

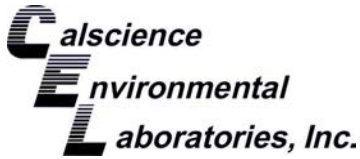
Client:	AMEC Environment & Infrastructure	Work Order:	14-05-1740
	121 Innovation Drive, Suite 200	Project Name:	Former Pechiney Cast Plate Facility /
	Irvine, CA 92617-3094		0106270030
		PO Number:	0106270030
		Date/Time Received:	05/22/14 17:25
		Number of Containers:	5

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1056	14-05-1740-1	05/22/14 08:45	1	Solid
#1057	14-05-1740-2	05/22/14 08:50	1	Solid
#1058	14-05-1740-3	05/22/14 08:52	1	Solid
#1059	14-05-1740-4	05/22/14 08:55	1	Solid
#1060	14-05-1740-5	05/22/14 09:00	1	Solid



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Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1740
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 05/22/14

Attn: Linda Conlan

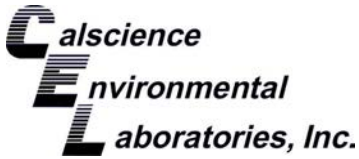
Page 1 of 4

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1056 (14-05-1740-1)						
Antimony	15.1		0.750	mg/kg	EPA 6010B	EPA 3050B
Arsenic	3.20		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	142		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.342		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	30.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	70.2		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	377		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.740		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	89.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	50.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	328		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.364		0.0833	mg/kg	EPA 7471A	EPA 7471A Total
C13-C14	71		50	mg/kg	EPA 8015B (M)	EPA 3550B
C17-C18	96		50	mg/kg	EPA 8015B (M)	EPA 3550B
C19-C20	170		50	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	190		50	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	280		50	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	310		50	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	330		50	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	300		50	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	120		50	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	2000		50	mg/kg	EPA 8015B (M)	EPA 3550B

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* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1740
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 05/22/14

Attn: Linda Conlan

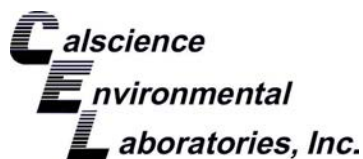
Page 2 of 4

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1057 (14-05-1740-2)						
Arsenic	3.04		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	71.5		0.500	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.798		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	46.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.06		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	80.8		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	104		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	11.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	53.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	22.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	346		1.00	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	140		50	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	550		50	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	440		50	ug/kg	EPA 8082	EPA 3540C
#1058 (14-05-1740-3)						
Arsenic	21.9		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	80.2		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	58.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	28.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	262		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	18.5		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.676		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	116		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	19.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	78.4		1.00	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	72		50	ug/kg	EPA 8082	EPA 3540C

Return to Contents

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1740
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 05/22/14

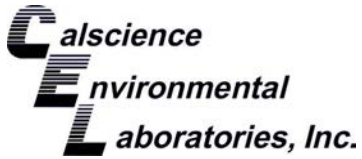
Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1059 (14-05-1740-4)						
Arsenic	39.5		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	56.5		0.490	mg/kg	EPA 6010B	EPA 3050B
Chromium	108		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	25.5		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	438		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	45.5		0.490	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.45		0.245	mg/kg	EPA 6010B	EPA 3050B
Nickel	416		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	2.47		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	57.9		0.980	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	73		50	ug/kg	EPA 8082	EPA 3540C
#1060 (14-05-1740-5)						
Arsenic	7.37		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	129		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.328		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	27.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	13.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	83.9		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	20.2		0.495	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.359		0.248	mg/kg	EPA 6010B	EPA 3050B
Nickel	109		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.5		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	86.7		0.990	mg/kg	EPA 6010B	EPA 3050B
C15-C16	78		49	mg/kg	EPA 8015B (M)	EPA 3550B
C17-C18	290		49	mg/kg	EPA 8015B (M)	EPA 3550B
C19-C20	410		49	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	500		49	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	680		49	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	880		49	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	1100		49	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	780		49	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	450		49	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	330		49	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	5500		49	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1248	73		50	ug/kg	EPA 8082	EPA 3540C

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1740
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 05/22/14

Attn: Linda Conlan

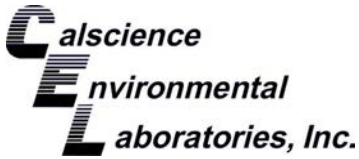
Page 4 of 4

Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
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Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1056	14-05-1740-1-A	05/22/14 08:45	Solid	GC 47	05/23/14	05/23/14 17:13	140523B05A

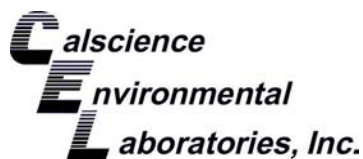
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	50	9.90	
C7	ND	50	9.90	
C8	ND	50	9.90	
C9-C10	ND	50	9.90	
C11-C12	ND	50	9.90	
C13-C14	71	50	9.90	
C15-C16	ND	50	9.90	
C17-C18	96	50	9.90	
C19-C20	170	50	9.90	
C21-C22	190	50	9.90	
C23-C24	280	50	9.90	
C25-C28	310	50	9.90	
C29-C32	330	50	9.90	
C33-C36	300	50	9.90	
C37-C40	120	50	9.90	
C41-C44	ND	50	9.90	
C6-C44 Total	2000	50	9.90	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	142	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1060	14-05-1740-5-A	05/22/14 09:00	Solid	GC 47	05/23/14	05/23/14 16:56	140523B05A

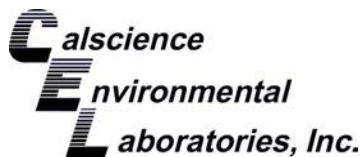
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	49	9.80	
C7	ND	49	9.80	
C8	ND	49	9.80	
C9-C10	ND	49	9.80	
C11-C12	ND	49	9.80	
C13-C14	ND	49	9.80	
C15-C16	78	49	9.80	
C17-C18	290	49	9.80	
C19-C20	410	49	9.80	
C21-C22	500	49	9.80	
C23-C24	680	49	9.80	
C25-C28	880	49	9.80	
C29-C32	1100	49	9.80	
C33-C36	780	49	9.80	
C37-C40	450	49	9.80	
C41-C44	330	49	9.80	
C6-C44 Total	5500	49	9.80	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	130	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 3 of 3

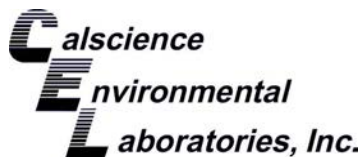
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-490-924	N/A	Solid	GC 47	05/23/14	05/23/14 12:03	140523B05A

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	87	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

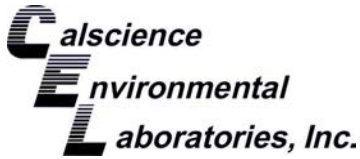
Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1056	14-05-1740-1-A	05/22/14 08:45	Solid	ICP 7300	05/22/14	05/23/14 15:31	140522L04

Parameter	Result	RL	DF	Qualifiers
Antimony	15.1	0.750	1.00	
Arsenic	3.20	0.750	1.00	
Barium	142	0.500	1.00	
Beryllium	0.342	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	30.1	0.250	1.00	
Cobalt	12.6	0.250	1.00	
Copper	70.2	0.500	1.00	
Lead	377	0.500	1.00	
Molybdenum	0.740	0.250	1.00	
Nickel	89.5	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	50.6	0.250	1.00	
Zinc	328	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

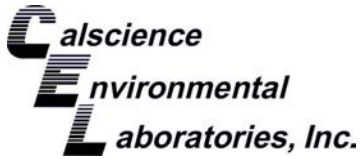
Page 2 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1057	14-05-1740-2-A	05/22/14 08:50	Solid	ICP 7300	05/22/14	05/23/14 15:32	140522L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	3.04	0.750	1.00	
Barium	71.5	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	0.798	0.500	1.00	
Chromium	46.5	0.250	1.00	
Cobalt	7.06	0.250	1.00	
Copper	80.8	0.500	1.00	
Lead	104	0.500	1.00	
Molybdenum	11.2	0.250	1.00	
Nickel	53.8	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	22.8	0.250	1.00	
Zinc	346	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

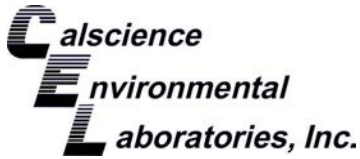
Page 3 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1058	14-05-1740-3-A	05/22/14 08:52	Solid	ICP 7300	05/22/14	05/23/14 15:33	140522L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	21.9	0.750	1.00	
Barium	80.2	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	58.2	0.250	1.00	
Cobalt	28.4	0.250	1.00	
Copper	262	0.500	1.00	
Lead	18.5	0.500	1.00	
Molybdenum	0.676	0.250	1.00	
Nickel	116	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	19.3	0.250	1.00	
Zinc	78.4	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

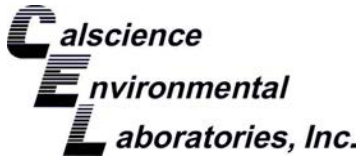
Page 4 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1059	14-05-1740-4-A	05/22/14 08:55	Solid	ICP 7300	05/22/14	05/23/14 15:35	140522L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	39.5	0.735	0.980	
Barium	56.5	0.490	0.980	
Beryllium	ND	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	108	0.245	0.980	
Cobalt	25.5	0.245	0.980	
Copper	438	0.490	0.980	
Lead	45.5	0.490	0.980	
Molybdenum	2.45	0.245	0.980	
Nickel	416	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	2.47	0.245	0.980	
Zinc	57.9	0.980	0.980	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

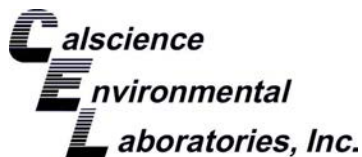
Page 5 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1060	14-05-1740-5-A	05/22/14 09:00	Solid	ICP 7300	05/22/14	05/23/14 15:36	140522L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	7.37	0.743	0.990	
Barium	129	0.495	0.990	
Beryllium	0.328	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	27.1	0.248	0.990	
Cobalt	13.1	0.248	0.990	
Copper	83.9	0.495	0.990	
Lead	20.2	0.495	0.990	
Molybdenum	0.359	0.248	0.990	
Nickel	109	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	31.5	0.248	0.990	
Zinc	86.7	0.990	0.990	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

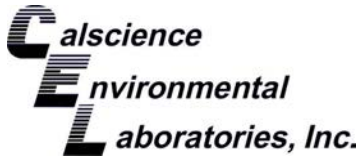
Page 6 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18406	N/A	Solid	ICP 7300	05/22/14	05/22/14 17:59	140522L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

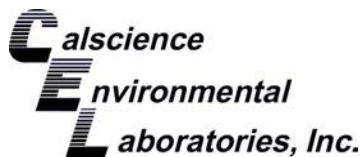
Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1056	14-05-1740-1-A	05/22/14 08:45	Solid	Mercury 05	05/22/14	05/22/14 20:50	140522L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.364	0.0833	1.00			
#1057	14-05-1740-2-A	05/22/14 08:50	Solid	Mercury 05	05/22/14	05/22/14 20:57	140522L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
#1058	14-05-1740-3-A	05/22/14 08:52	Solid	Mercury 05	05/22/14	05/22/14 21:03	140522L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0794	1.00			
#1059	14-05-1740-4-A	05/22/14 08:55	Solid	Mercury 05	05/22/14	05/22/14 21:05	140522L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0847	1.00			
#1060	14-05-1740-5-A	05/22/14 09:00	Solid	Mercury 05	05/22/14	05/22/14 21:08	140522L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			
Method Blank	099-16-272-256	N/A	Solid	Mercury 05	05/22/14	05/22/14 20:45	140522L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1056	14-05-1740-1-A	05/22/14 08:45	Solid	GC 58	05/22/14	05/24/14 16:06	140522L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

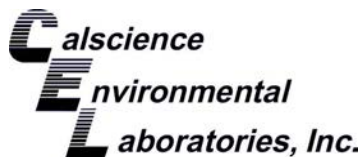
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	60-125	
2,4,5,6-Tetrachloro-m-Xylene	101	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1057	14-05-1740-2-A	05/22/14 08:50	Solid	GC 58	05/22/14	05/24/14 16:24	140522L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	140	50	1.00	
Aroclor-1254	550	50	1.00	
Aroclor-1260	440	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	60-125	
2,4,5,6-Tetrachloro-m-Xylene	91	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1058	14-05-1740-3-A	05/22/14 08:52	Solid	GC 58	05/22/14	05/24/14 17:00	140522L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	72	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

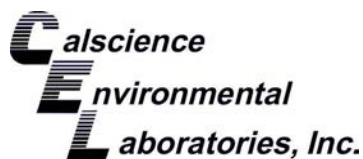
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	107	60-125	
2,4,5,6-Tetrachloro-m-Xylene	97	50-130	

#1059	14-05-1740-4-A	05/22/14 08:55	Solid	GC 58	05/22/14	05/24/14 17:18	140522L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	73	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	106	60-125	
2,4,5,6-Tetrachloro-m-Xylene	106	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1060	14-05-1740-5-A	05/22/14 09:00	Solid	GC 58	05/22/14	05/24/14 17:35	140522L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	73	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

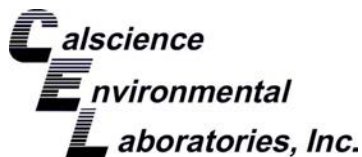
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	60-125	
2,4,5,6-Tetrachloro-m-Xylene	108	50-130	

Method Blank	099-02-003-255	N/A	Solid	GC 58	05/22/14	05/24/14 15:12	140522L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	106	60-125	
2,4,5,6-Tetrachloro-m-Xylene	104	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate Facility / 0106270030

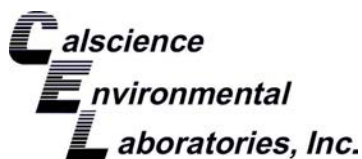
Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-05-1746-4	Sample	Solid	GC 47	05/23/14	05/23/14 14:04	140523S05
14-05-1746-4	Matrix Spike	Solid	GC 47	05/23/14	05/23/14 12:37	140523S05
14-05-1746-4	Matrix Spike Duplicate	Solid	GC 47	05/23/14	05/23/14 12:54	140523S05

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	406.3	102	396.6	99	55-133	2	0-30	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

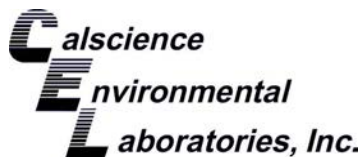
Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-05-0812-6	Sample	Solid	ICP 7300	05/22/14	05/22/14 18:05	140522S04
14-05-0812-6	Matrix Spike	Solid	ICP 7300	05/22/14	05/22/14 18:06	140522S04
14-05-0812-6	Matrix Spike Duplicate	Solid	ICP 7300	05/22/14	05/22/14 18:11	140522S04

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	4.136	17	4.549	18	50-115	10	0-20	3
Arsenic	4.001	25.00	28.50	98	27.80	95	75-125	2	0-20	
Barium	193.4	25.00	288.7	4X	200.0	4X	75-125	4X	0-20	Q
Beryllium	0.4187	25.00	26.63	105	26.39	104	75-125	1	0-20	
Cadmium	ND	25.00	24.70	99	24.36	97	75-125	1	0-20	
Chromium	66.56	25.00	91.26	99	88.85	89	75-125	3	0-20	
Cobalt	18.96	25.00	42.33	93	41.99	92	75-125	1	0-20	
Copper	41.66	25.00	68.60	108	65.49	95	75-125	5	0-20	
Lead	4.436	25.00	28.38	96	28.66	97	75-125	1	0-20	
Molybdenum	ND	25.00	21.44	86	21.26	85	75-125	1	0-20	
Nickel	79.69	25.00	102.2	90	101.4	87	75-125	1	0-20	
Selenium	ND	25.00	19.58	78	19.20	77	75-125	2	0-20	
Silver	ND	12.50	12.74	102	12.67	101	75-125	1	0-20	
Thallium	ND	25.00	23.04	92	22.75	91	75-125	1	0-20	
Vanadium	72.62	25.00	99.99	109	95.65	92	75-125	4	0-20	
Zinc	47.26	25.00	70.98	95	69.80	90	75-125	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

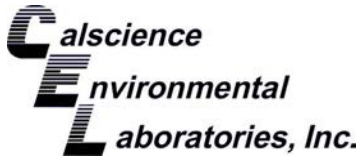
Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1056	Sample	Solid	Mercury 05	05/22/14	05/22/14 20:50	140522S08
#1056	Matrix Spike	Solid	Mercury 05	05/22/14	05/22/14 20:52	140522S08
#1056	Matrix Spike Duplicate	Solid	Mercury 05	05/22/14	05/22/14 20:54	140522S08

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.3643	0.8350	0.9944	75	1.122	91	71-137	12	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

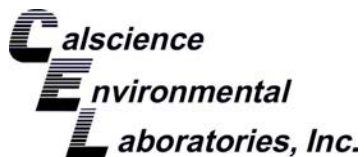
AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
#1056	Sample	Solid	GC 58	05/22/14	05/24/14 16:06	140522S16				
#1056	Matrix Spike	Solid	GC 58	05/22/14	05/24/14 15:30	140522S16				
#1056	Matrix Spike Duplicate	Solid	GC 58	05/22/14	05/24/14 15:48	140522S16				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	207.5	207	183.7	184	50-135	12	0-25	3
Aroclor-1260	ND	100.0	84.09	84	85.99	86	50-135	2	0-25	



Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

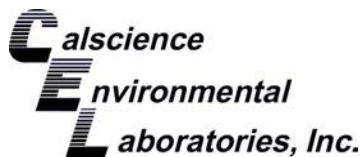
Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-924	LCS	Solid	GC 47	05/23/14	05/23/14 12:20	140523B05A
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	374.8	94	75-123	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18406	LCS	Solid	ICP 7300	05/22/14	05/22/14 18:04	140522L04
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	24.79	99	80-120	73-127	
Arsenic	25.00	24.24	97	80-120	73-127	
Barium	25.00	25.50	102	80-120	73-127	
Beryllium	25.00	24.65	99	80-120	73-127	
Cadmium	25.00	25.68	103	80-120	73-127	
Chromium	25.00	25.41	102	80-120	73-127	
Cobalt	25.00	27.65	111	80-120	73-127	
Copper	25.00	25.39	102	80-120	73-127	
Lead	25.00	25.74	103	80-120	73-127	
Molybdenum	25.00	24.98	100	80-120	73-127	
Nickel	25.00	26.67	107	80-120	73-127	
Selenium	25.00	22.28	89	80-120	73-127	
Silver	12.50	12.86	103	80-120	73-127	
Thallium	25.00	26.15	105	80-120	73-127	
Vanadium	25.00	24.60	98	80-120	73-127	
Zinc	25.00	25.78	103	80-120	73-127	

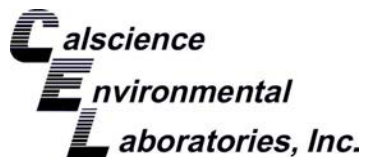
Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 7471A Total
Method: EPA 7471A

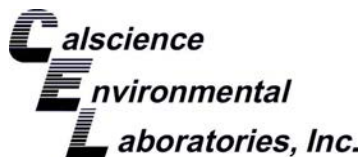
Project: Former Pechiney Cast Plate Facility / 0106270030

Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-256	LCS	Solid	Mercury 05	05/22/14	05/22/14 20:47	140522L08

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.8722	104	85-121	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

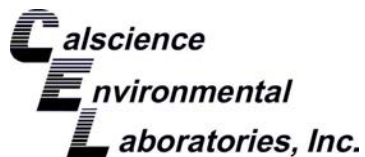
Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-02-003-255	LCS	Solid	GC 58	05/22/14	05/24/14 14:54	140522L16
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	93.15	93	50-135	
Aroclor-1260		100.0	94.64	95	60-130	

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Sample Analysis Summary Report

Work Order: 14-05-1740

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8015B (M)	EPA 3550B	682	GC 47	1
EPA 8082	EPA 3540C	669	GC 58	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-05-1740

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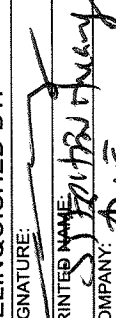
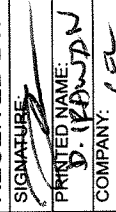

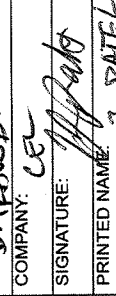
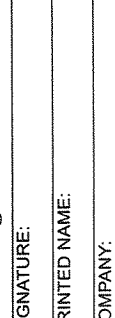
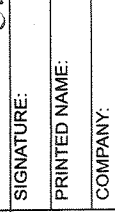
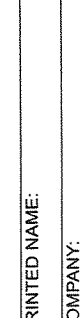
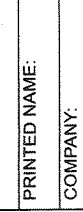

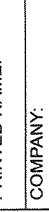

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CHAIN-OF-CUSTODY RECORD

NB 27494

PROJECT NAME: FORMER PEUTANEY CAST PATE FACILITY		DATE: 5/22/14		PAGE 1 OF 1						
PROJECT NUMBER: 0106270030		REPORTING REQUIREMENTS:								
RESULTS TO: h. coulson		14-05-1740								
TURNAROUND TIME: 48 Hrs										
SAMPLE SHIPMENT METHOD: Lab courier		GEOTRACKER REQUIRED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>								
LABORATORY CONTACT: Spine N. S. Walsh		SITE SPECIFIC GLOBAL ID NO.								
LABORATORY ADDRESS: CEC										
LABORATORY PHONE NUMBER: CEC										
LABORATORY NAME: CEC										
CLIENT INFORMATION:										
ANALYSES										
SAMPLERS (SIGNATURE): 										
DATE	TIME	SAMPLE NUMBER	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
5/22/14	0845	#1056	407 jar	S		None	X		1	
	0850	#1057		S			X		1	
	0852	#1058		S			X		1	
	0855	#1059		S			X		1	
	0900	#1060		S			X		1	
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:	DATE	TIME	TOTAL NUMBER OF CONTAINERS: (5)			
SIGNATURE: 		5/22/14	1515	SIGNATURE: 	5/22/14	1515	SAMPLING COMMENTS:			
PRINTED NAME: Spine N. S. Walsh				PRINTED NAME: D. P. Walsh						
COMPANY: CEC				COMPANY: CEC						
SIGNATURE: 		5/22/14	1725	SIGNATURE: 	5/22/14	1725				
PRINTED NAME: D. P. Walsh				PRINTED NAME: J. Patel						
COMPANY: CEC				COMPANY: CEC						
SIGNATURE: 				SIGNATURE: 						
PRINTED NAME: J. Patel				PRINTED NAME: J. Patel						
COMPANY: CEC				COMPANY: CEC						
SIGNATURE: 				SIGNATURE: 						
PRINTED NAME: J. Patel				PRINTED NAME: J. Patel						
COMPANY: CEC				COMPANY: CEC						
SIGNATURE: 				SIGNATURE: 						
PRINTED NAME: J. Patel				PRINTED NAME: J. Patel						
COMPANY: CEC				COMPANY: CEC						
		121 Innovation Drive, Suite 200 Irvine, California 92617-3094 Tel 949.642.0245 Fax 949.642.4474								

WORK ORDER #: **14-05-1740**

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 05/22/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Temperature 2.9 °C - 0.3°C (CF) = 2.6 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: BDY

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____

☐ No (Not Intact)

☒ Not Present

☐ N/A

Checked by: BDY

☐ Sample ☐ _____

☐ No (Not Intact)

☒ Not Present

Checked by: SM

SAMPLE CONDITION:

Yes No N/A

Chain-Of-Custody (COC) document(s) received with samples..... ☒

☐

☐

COC document(s) received complete..... ☒

☐

☐

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC..... ☒

☐

☐

Sample container label(s) consistent with COC..... ☒

☐

☐

Sample container(s) intact and good condition..... ☒

☐

☐

Proper containers and sufficient volume for analyses requested..... ☒

☐

☐

Analyses received within holding time..... ☒

☐

☐

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐

☐

☒

Proper preservation noted on COC or sample container..... ☐

☐

☒

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... ☐

☐

☒

Tedlar bag(s) free of condensation..... ☐

☐

☒

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s

☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister **Other:** ☐ _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** SM

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** BSA

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered **Scanned by:** BSA



Supplemental Report 1

Additional requested analyses are reported as a stand-alone report.



CALSCIENCE

WORK ORDER NUMBER: 14-05-1740

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/06/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



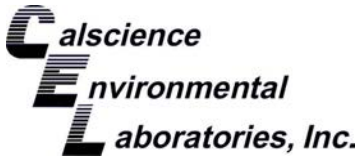
7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501 • www.calscience.com

NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030
Work Order Number: 14-05-1740

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Work Order Narrative

Work Order: 14-05-1740

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 05/22/14. They were assigned to Work Order 14-05-1740.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the CalScience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

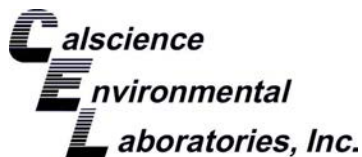
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



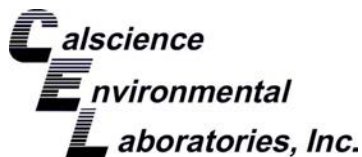
Sample Summary

Client: AMEC Environment & Infrastructure	Work Order: 14-05-1740
121 Innovation Drive, Suite 200	Project Name: Former Pechiney Cast Plate Facility / 0106270030
Irvine, CA 92617-3094	PO Number: 0106270030
	Date/Time Received: 05/22/14 17:25
	Number of Containers: 5

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1056	14-05-1740-1	05/22/14 08:45	1	Solid
#1057	14-05-1740-2	05/22/14 08:50	1	Solid
#1058	14-05-1740-3	05/22/14 08:52	1	Solid
#1059	14-05-1740-4	05/22/14 08:55	1	Solid


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Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-1740
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 05/22/14

Attn: Linda Conlan

Page 1 of 1

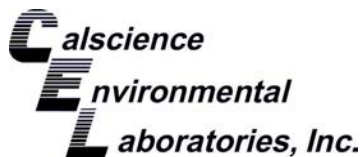
Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
#1056 (14-05-1740-1)						
Lead	0.173		0.100	mg/L	EPA 6010B	EPA 1311
Lead	1.97		0.100	mg/L	EPA 6010B	T22.11.5. All
#1057 (14-05-1740-2)						
Lead	4.98		0.100	mg/L	EPA 6010B	T22.11.5. All
#1058 (14-05-1740-3)						
Chromium	4.61		0.100	mg/L	EPA 6010B	T22.11.5. All
#1059 (14-05-1740-4)						
Chromium	1.89		0.100	mg/L	EPA 6010B	T22.11.5. All

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: T22.11.5. All
Method: EPA 6010B
Units: mg/L

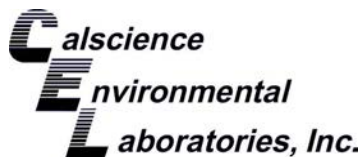
Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1056	14-05-1740-1-A	05/22/14 08:45	Solid	ICP 7300	06/03/14	06/05/14 18:14	140605LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		1.97	0.100		1.00		
#1057	14-05-1740-2-A	05/22/14 08:50	Solid	ICP 7300	06/03/14	06/05/14 18:15	140605LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		4.98	0.100		1.00		
#1058	14-05-1740-3-A	05/22/14 08:52	Solid	ICP 7300	06/03/14	06/05/14 18:17	140605LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Chromium		4.61	0.100		1.00		
#1059	14-05-1740-4-A	05/22/14 08:55	Solid	ICP 7300	06/03/14	06/05/14 18:18	140605LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Chromium		1.89	0.100		1.00		
Method Blank	097-05-006-7287	N/A	Aqueous	ICP 7300	06/03/14	06/05/14 17:49	140605LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Chromium		ND	0.100		1.00		
Lead		ND	0.100		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 1311
Method: EPA 6010B
Units: mg/L

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1056	14-05-1740-1-A	05/22/14 08:45	Solid	ICP 7300	06/03/14	06/04/14 16:12	140604LA1

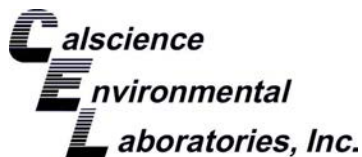
Parameter	Result	RL	DF	Qualifiers
Lead	0.173	0.100	1.00	

Method Blank	099-14-021-1218	N/A	Aqueous	ICP 7300	06/03/14	06/04/14 15:28	140604LA1
--------------	-----------------	-----	---------	----------	----------	----------------	-----------

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: T22.11.5. All
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

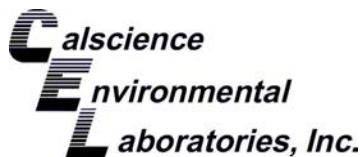
Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-0282-1	Sample	Aqueous	ICP 7300	06/05/14	06/05/14 17:53	140605SA1
14-06-0282-1	Matrix Spike	Aqueous	ICP 7300	06/05/14	06/05/14 17:55	140605SA1
14-06-0282-1	Matrix Spike Duplicate	Aqueous	ICP 7300	06/05/14	06/05/14 17:56	140605SA1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	ND	5.000	5.220	104	5.276	106	75-125	1	0-20	
Lead	ND	5.000	5.410	108	5.467	109	75-125	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 1311
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

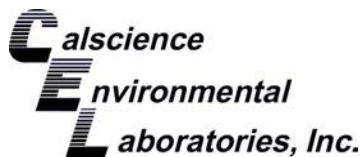
Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-05-2144-3	Sample	Solid	ICP 7300	06/03/14	06/04/14 15:49	140604SA1
14-05-2144-3	Matrix Spike	Solid	ICP 7300	06/03/14	06/04/14 15:50	140604SA1
14-05-2144-3	Matrix Spike Duplicate	Solid	ICP 7300	06/03/14	06/04/14 15:52	140604SA1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	0.9435	5.000	6.490	111	5.605	93	84-120	15	0-7	4

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

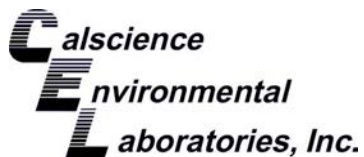
Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: T22.11.5. All
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-05-006-7287	LCS	Aqueous	ICP 7300	06/03/14	06/05/14 17:51	140605LA1
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		5.000	5.555	111	80-120	
Lead		5.000	5.622	112	80-120	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

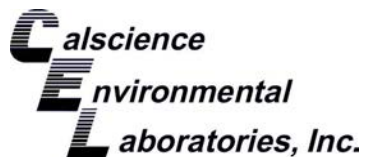
Date Received: 05/22/14
Work Order: 14-05-1740
Preparation: EPA 1311
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-021-1218	LCS	Aqueous	ICP 7300	06/03/14	06/04/14 15:30	140604LA1
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead		5.000	5.330	107	80-120	

Return to Contents



Sample Analysis Summary Report

Work Order: 14-05-1740

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 1311	469	ICP 7300	1
EPA 6010B	T22.11.5. All	469	ICP 7300	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-05-1740

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Stephen Nowak

From: Holland, Kim [Kim.Holland@amec.com]
Sent: Tuesday, June 03, 2014 3:20 PM
To: Stephen Nowak
Subject: RE: Former Pechiney Cast Plate Facility / 0106270030 / CEL 14-05-1740

Please add the following analyses:

Pb STLC and TCLP for sample #1056

Pb STLC for sample #1057

Cr STLC for samples #1058 and #1059

For all the STLC and TCLP analyses I have requested today, please provide as quick a turnaround as possible.

Thanks,
 Kim

From: Stephen Nowak [snowak@calscience.com]
 Sent: Tuesday, May 27, 2014 6:01 PM
 To: Costamagna, Daniel G; Holland, Kim; Conlan, Linda; Huang, Stephen; Lee, Zhur
 Subject: Former Pechiney Cast Plate Facility / 0106270030 / CEL 14-05-1740

Report, EDD, and Invoice are attached.

Stephen Nowak
 Project Manager

[cid:image004.jpg@01CF79D5.A4DBD8E0]
 7440 Lincoln Way
 Garden Grove, CA 92841-1427
 (714) 895-5494
www.calscience.com<<http://www.calscience.com>>

[cid:image003.jpg@01CF79D5.A4C8C610]

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CHAIN-OF-CUSTODY RECORD

NB 27494

PROJECT NAME: FORMER PEUTANEY CAST PLATE FACILITY		DATE: 5/22/14	PAGE 1 OF 1
PROJECT NUMBER: 0106270030		REPORTING REQUIREMENTS:	
RESULTS TO: h. coulson		14-05-1740	
TURNAROUND TIME: 48 Hrs			
SAMPLE SHIPMENT METHOD: Lab courier		GEOTRACKER REQUIRED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
LABORATORY CONTACT: Spore N. S. Walsh		SITE SPECIFIC GLOBAL ID NO.	
LABORATORY ADDRESS: CEC			
LABORATORY PHONE NUMBER: (610) 771-1415			

SAMPLERS (SIGNATURE):		ANALYSES										CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
DATE	TIME	SAMPLE NUMBER	1	2	3	4	5	6	7	8	9								
5/22/14	0845	#1056	X	X	X	X	X	X	X	X	X	407 jar	S		No. 2	X		1	
	0850	#1057	X	X	X	X	X	X	X	X	X		S			X		1	
	0852	#1058	X	X	X	X	X	X	X	X	X		S			X		1	
	0855	#1059	X	X	X	X	X	X	X	X	X		S			X		1	
	0900	#1060	X	X	X	X	X	X	X	X	X		S			X		1	

RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		DATE	TIME	TOTAL NUMBER OF CONTAINERS:	
SIGNATURE: <i>[Signature]</i>		5/22/14	1515	SIGNATURE: <i>[Signature]</i>		5/22/14	1515	(5)	
PRINTED NAME: SPURTAUGH				PRINTED NAME: D. BOWEN				SAMPLING COMMENTS:	
COMPANY: DRIVE				COMPANY: CEL					
SIGNATURE: <i>[Signature]</i>		5/22/14	1725	SIGNATURE: <i>[Signature]</i>		5/22/14	1725		
PRINTED NAME: WILSON				PRINTED NAME: J. RAHEL					
COMPANY: CEL				COMPANY: CEL					
SIGNATURE:				SIGNATURE:					
PRINTED NAME:				PRINTED NAME:					
COMPANY:				COMPANY:					



121 Innovation Drive, Suite 200
Irvine, California 92617-3094
Tel 949.642.0245 Fax 949.642.4474

WORK ORDER #: **14-05-1740**

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 05/22/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Temperature 2.9 °C - 0.3°C (CF) = 2.6 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: BDY

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____

☐ No (Not Intact)

☒ Not Present

☐ N/A

Checked by: BDY

☐ Sample ☐ _____

☐ No (Not Intact)

☒ Not Present

Checked by: SM

SAMPLE CONDITION:

Yes No N/A

Chain-Of-Custody (COC) document(s) received with samples..... ☒

☐

☐

COC document(s) received complete..... ☒

☐

☐

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC..... ☒

☐

☐

Sample container label(s) consistent with COC..... ☒

☐

☐

Sample container(s) intact and good condition..... ☒

☐

☐

Proper containers and sufficient volume for analyses requested..... ☒

☐

☐

Analyses received within holding time..... ☒

☐

☐

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐

☐

☒

Proper preservation noted on COC or sample container..... ☐

☐

☒

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... ☐

☐

☒

Tedlar bag(s) free of condensation..... ☐

☐

☒

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s

☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister **Other:** ☐ _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** SM

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** BSA

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered **Scanned by:** BSA



CALSCIENCE

WORK ORDER NUMBER: 14-05-2144

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/02/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



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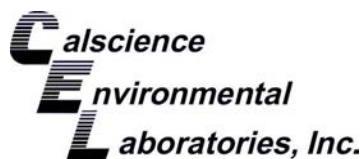
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NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

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Work Order Narrative

Work Order: 14-05-2144

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 05/29/14. They were assigned to Work Order 14-05-2144.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the CalScience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

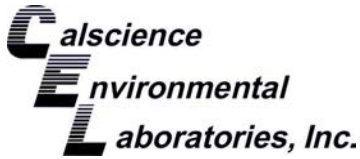
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



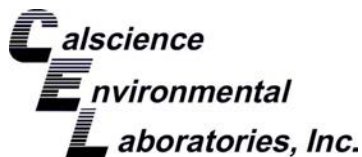
Sample Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-2144
Project Name: Former Pechiney Cast Plate / 0106270030
PO Number:
Date/Time Received: 05/29/14 18:00
Number of Containers: 9

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
876-IIIB-O-SS-002	14-05-2144-1	05/29/14 08:42	1	Solid
#1066	14-05-2144-2	05/29/14 11:04	1	Solid
#1067	14-05-2144-3	05/29/14 11:06	1	Solid
#1068	14-05-2144-4	05/29/14 11:12	1	Solid
#1069	14-05-2144-5	05/29/14 11:15	1	Solid
#1070	14-05-2144-6	05/29/14 11:18	1	Solid
#1071	14-05-2144-7	05/29/14 11:22	1	Solid
#1072	14-05-2144-8	05/29/14 11:25	1	Solid
#1073	14-05-2144-9	05/29/14 11:26	1	Solid



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-2144
Project Name: Former Pechiney Cast Plate / 0106270030
Received: 05/29/14

Attn: Linda Conlan

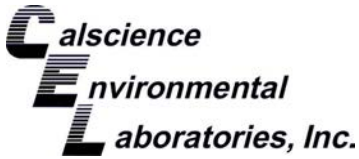
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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
#1066 (14-05-2144-2)						
Barium	0.644		0.505	mg/kg	EPA 6010B	EPA 3050B
Chromium	0.334		0.253	mg/kg	EPA 6010B	EPA 3050B
Lead	1.50		0.505	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.288		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	0.314		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	27.4		1.01	mg/kg	EPA 6010B	EPA 3050B
C19-C20	16000		10000	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	19000		10000	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	15000		10000	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	53000		10000	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	55000		10000	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	33000		10000	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	33000		10000	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	17000		10000	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	240000		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

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Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-2144
Project Name: Former Pechiney Cast Plate / 0106270030
Received: 05/29/14

Attn: Linda Conlan

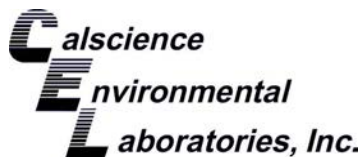
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1067 (14-05-2144-3)						
Arsenic	12.7		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	153		0.493	mg/kg	EPA 6010B	EPA 3050B
Chromium	41.6		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	14.2		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	117		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	161		0.493	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.629		0.246	mg/kg	EPA 6010B	EPA 3050B
Nickel	113		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.0		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	266		0.985	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.155		0.0820	mg/kg	EPA 7471A	EPA 7471A Total
C9-C10	94		25	mg/kg	EPA 8015B (M)	EPA 3550B
C11-C12	760		25	mg/kg	EPA 8015B (M)	EPA 3550B
C13-C14	970		25	mg/kg	EPA 8015B (M)	EPA 3550B
C15-C16	280		25	mg/kg	EPA 8015B (M)	EPA 3550B
C17-C18	240		25	mg/kg	EPA 8015B (M)	EPA 3550B
C19-C20	260		25	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	320		25	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	420		25	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	430		25	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	590		25	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	230		25	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	140		25	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	97		25	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	4800		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

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* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-2144
Project Name: Former Pechiney Cast Plate / 0106270030
Received: 05/29/14

Attn: Linda Conlan

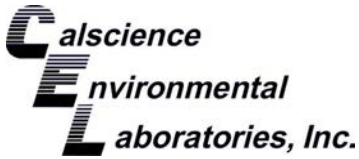
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1068 (14-05-2144-4)						
Arsenic	15.4		0.746	mg/kg	EPA 6010B	EPA 3050B
Barium	148		0.498	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.286		0.249	mg/kg	EPA 6010B	EPA 3050B
Chromium	42.4		0.249	mg/kg	EPA 6010B	EPA 3050B
Cobalt	15.8		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	101		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	79.5		0.498	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.721		0.249	mg/kg	EPA 6010B	EPA 3050B
Nickel	301		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	28.5		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	222		0.995	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.262		0.0781	mg/kg	EPA 7471A	EPA 7471A Total
C13-C14	1700		1000	mg/kg	EPA 8015B (M)	EPA 3550B
C19-C20	3400		1000	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	3000		1000	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	4000		1000	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	4500		1000	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	4300		1000	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	6100		1000	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	1200		1000	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	31000		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

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* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-2144
Project Name: Former Pechiney Cast Plate / 0106270030
Received: 05/29/14

Attn: Linda Conlan

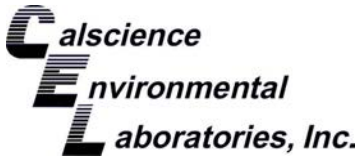
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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
#1069 (14-05-2144-5)						
Arsenic	2.67		0.746	mg/kg	EPA 6010B	EPA 3050B
Barium	166		0.498	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.356		0.249	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.8		0.249	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.9		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	108		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	109		0.498	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.398		0.249	mg/kg	EPA 6010B	EPA 3050B
Nickel	21.6		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.4		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	166		0.995	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.153		0.0847	mg/kg	EPA 7471A	EPA 7471A Total
C21-C22	19		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	14		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	37		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	57		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	22		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	17		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	170		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

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Detections Summary

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121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

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Received: 05/29/14

Attn: Linda Conlan

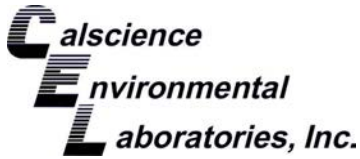
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1070 (14-05-2144-6)						
Antimony	293		0.754	mg/kg	EPA 6010B	EPA 3050B
Arsenic	39.9		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	3520		0.503	mg/kg	EPA 6010B	EPA 3050B
Cadmium	16.5		0.503	mg/kg	EPA 6010B	EPA 3050B
Chromium	123		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	38.4		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	1250		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	13500		50.3	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	4.51		0.251	mg/kg	EPA 6010B	EPA 3050B
Nickel	405		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	22.4		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	12500		101	mg/kg	EPA 6010B	EPA 3050B
Mercury	4.16		0.820	mg/kg	EPA 7471A	EPA 7471A Total
C21-C22	130		25	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	25		25	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	230		25	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	330		25	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	120		25	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	120		25	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	41		25	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	990		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1248	490		50	ug/kg	EPA 8082	EPA 3540C

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Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-2144
Project Name: Former Pechiney Cast Plate / 0106270030
Received: 05/29/14

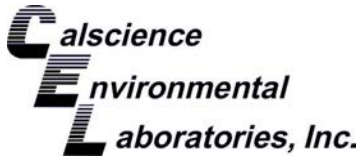
Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1071 (14-05-2144-7)						
Antimony	24.8		0.743	mg/kg	EPA 6010B	EPA 3050B
Arsenic	14.0		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	688		0.495	mg/kg	EPA 6010B	EPA 3050B
Cadmium	4.18		0.495	mg/kg	EPA 6010B	EPA 3050B
Chromium	138		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	33.8		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	933		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	1610		0.495	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	5.69		0.248	mg/kg	EPA 6010B	EPA 3050B
Nickel	276		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	25.4		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	2650		0.990	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.735		0.0806	mg/kg	EPA 7471A	EPA 7471A Total
C23-C24	37		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	25		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	48		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	8.2		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	120		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
#1072 (14-05-2144-8)						
Barium	79.7		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.360		0.251	mg/kg	EPA 6010B	EPA 3050B
Chromium	9.92		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.61		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	75.7		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	88.5		0.503	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.522		0.251	mg/kg	EPA 6010B	EPA 3050B
Nickel	18.8		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	3.47		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	233		1.01	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.392		0.0781	mg/kg	EPA 7471A	EPA 7471A Total
C25-C28	9.2		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	10		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	6.5		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	41		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-2144
Project Name: Former Pechiney Cast Plate / 0106270030
Received: 05/29/14

Attn: Linda Conlan

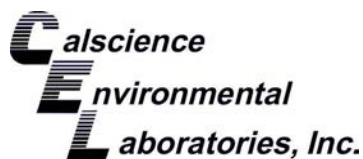
Page 7 of 7

Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
#1073 (14-05-2144-9)						
Antimony	2050		0.746	mg/kg	EPA 6010B	EPA 3050B
Arsenic	32.8		0.746	mg/kg	EPA 6010B	EPA 3050B
Barium	202		0.498	mg/kg	EPA 6010B	EPA 3050B
Chromium	21.5		0.249	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.66		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	198		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	16100		49.8	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.29		0.249	mg/kg	EPA 6010B	EPA 3050B
Nickel	25.2		0.249	mg/kg	EPA 6010B	EPA 3050B
Silver	0.617		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	27.3		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	389		0.995	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.297		0.0806	mg/kg	EPA 7471A	EPA 7471A Total
C29-C32	32		25	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	38		25	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	72		25	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	180		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1066	14-05-2144-2-A	05/29/14 11:04	Solid	GC 47	05/30/14	05/30/14 18:23	140530B01

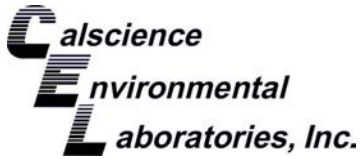
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	10000	100	
C7	ND	10000	100	
C8	ND	10000	100	
C9-C10	ND	10000	100	
C11-C12	ND	10000	100	
C13-C14	ND	10000	100	
C15-C16	ND	10000	100	
C17-C18	ND	10000	100	
C19-C20	16000	10000	100	
C21-C22	19000	10000	100	
C23-C24	15000	10000	100	
C25-C28	53000	10000	100	
C29-C32	55000	10000	100	
C33-C36	33000	10000	100	
C37-C40	33000	10000	100	
C41-C44	17000	10000	100	
C6-C44 Total	240000	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	133	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1067	14-05-2144-3-A	05/29/14 11:06	Solid	GC 47	05/30/14	05/30/14 18:40	140530B01

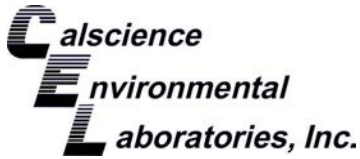
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	25	5.00	
C7	ND	25	5.00	
C8	ND	25	5.00	
C9-C10	94	25	5.00	
C11-C12	760	25	5.00	
C13-C14	970	25	5.00	
C15-C16	280	25	5.00	
C17-C18	240	25	5.00	
C19-C20	260	25	5.00	
C21-C22	320	25	5.00	
C23-C24	420	25	5.00	
C25-C28	430	25	5.00	
C29-C32	590	25	5.00	
C33-C36	230	25	5.00	
C37-C40	140	25	5.00	
C41-C44	97	25	5.00	
C6-C44 Total	4800	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	96	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1068	14-05-2144-4-A	05/29/14 11:12	Solid	GC 47	05/30/14	05/30/14 18:05	140530B01

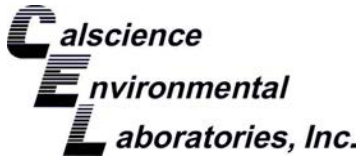
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	1000	20.0	
C7	ND	1000	20.0	
C8	ND	1000	20.0	
C9-C10	ND	1000	20.0	
C11-C12	ND	1000	20.0	
C13-C14	1700	1000	20.0	
C15-C16	ND	1000	20.0	
C17-C18	ND	1000	20.0	
C19-C20	3400	1000	20.0	
C21-C22	3000	1000	20.0	
C23-C24	4000	1000	20.0	
C25-C28	4500	1000	20.0	
C29-C32	4300	1000	20.0	
C33-C36	6100	1000	20.0	
C37-C40	ND	1000	20.0	
C41-C44	1200	1000	20.0	
C6-C44 Total	31000	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	108	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1069	14-05-2144-5-A	05/29/14 11:15	Solid	GC 47	05/30/14	05/30/14 17:30	140530B01

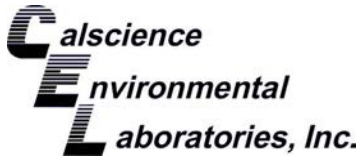
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	19	5.0	1.00	
C23-C24	14	5.0	1.00	
C25-C28	37	5.0	1.00	
C29-C32	57	5.0	1.00	
C33-C36	22	5.0	1.00	
C37-C40	17	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	170	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	89	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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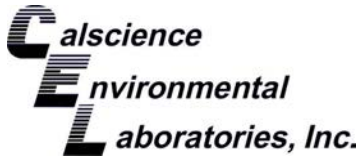
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1070	14-05-2144-6-A	05/29/14 11:18	Solid	GC 47	05/30/14	05/30/14 18:57	140530B01

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	25	5.00	
C7	ND	25	5.00	
C8	ND	25	5.00	
C9-C10	ND	25	5.00	
C11-C12	ND	25	5.00	
C13-C14	ND	25	5.00	
C15-C16	ND	25	5.00	
C17-C18	ND	25	5.00	
C19-C20	ND	25	5.00	
C21-C22	130	25	5.00	
C23-C24	25	25	5.00	
C25-C28	230	25	5.00	
C29-C32	330	25	5.00	
C33-C36	120	25	5.00	
C37-C40	120	25	5.00	
C41-C44	41	25	5.00	
C6-C44 Total	990	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	78	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1071	14-05-2144-7-A	05/29/14 11:22	Solid	GC 47	05/30/14	05/30/14 17:12	140530B01

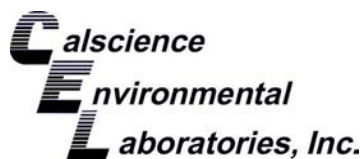
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	37	5.0	1.00	
C25-C28	25	5.0	1.00	
C29-C32	48	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	8.2	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	120	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	61	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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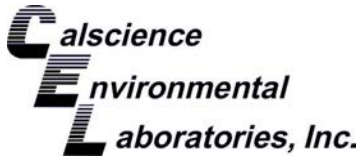
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1072	14-05-2144-8-A	05/29/14 11:25	Solid	GC 47	05/30/14	05/30/14 15:44	140530B01

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	9.2	4.9	1.00	
C29-C32	10	4.9	1.00	
C33-C36	6.5	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	41	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	90	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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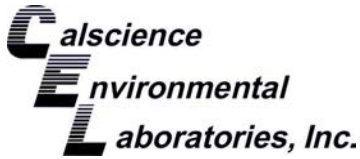
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1073	14-05-2144-9-A	05/29/14 11:26	Solid	GC 47	05/30/14	05/30/14 19:14	140530B01

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	25	5.00	
C7	ND	25	5.00	
C8	ND	25	5.00	
C9-C10	ND	25	5.00	
C11-C12	ND	25	5.00	
C13-C14	ND	25	5.00	
C15-C16	ND	25	5.00	
C17-C18	ND	25	5.00	
C19-C20	ND	25	5.00	
C21-C22	ND	25	5.00	
C23-C24	ND	25	5.00	
C25-C28	ND	25	5.00	
C29-C32	32	25	5.00	
C33-C36	38	25	5.00	
C37-C40	72	25	5.00	
C41-C44	ND	25	5.00	
C6-C44 Total	180	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	86	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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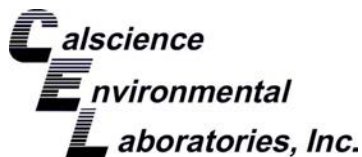
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-490-932	N/A	Solid	GC 47	05/30/14	05/30/14 12:32	140530B01

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

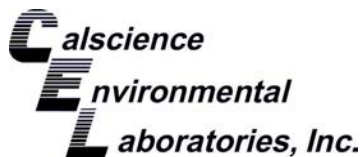
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1066	14-05-2144-2-A	05/29/14 11:04	Solid	ICP 7300	05/29/14	05/30/14 16:55	140529L02

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	ND	0.758	1.01	
Barium	0.644	0.505	1.01	
Beryllium	ND	0.253	1.01	
Cadmium	ND	0.505	1.01	
Chromium	0.334	0.253	1.01	
Cobalt	ND	0.253	1.01	
Copper	ND	0.505	1.01	
Lead	1.50	0.505	1.01	
Molybdenum	ND	0.253	1.01	
Nickel	0.288	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	0.314	0.253	1.01	
Zinc	27.4	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

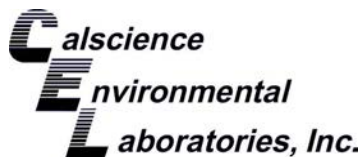
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1067	14-05-2144-3-A	05/29/14 11:06	Solid	ICP 7300	05/29/14	05/30/14 16:56	140529L02

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	12.7	0.739	0.985	
Barium	153	0.493	0.985	
Beryllium	ND	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	41.6	0.246	0.985	
Cobalt	14.2	0.246	0.985	
Copper	117	0.493	0.985	
Lead	161	0.493	0.985	
Molybdenum	0.629	0.246	0.985	
Nickel	113	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	23.0	0.246	0.985	
Zinc	266	0.985	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

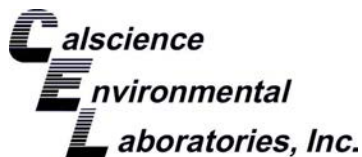
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1068	14-05-2144-4-A	05/29/14 11:12	Solid	ICP 7300	05/29/14	05/30/14 16:58	140529L02

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.746	0.995	
Arsenic	15.4	0.746	0.995	
Barium	148	0.498	0.995	
Beryllium	0.286	0.249	0.995	
Cadmium	ND	0.498	0.995	
Chromium	42.4	0.249	0.995	
Cobalt	15.8	0.249	0.995	
Copper	101	0.498	0.995	
Lead	79.5	0.498	0.995	
Molybdenum	0.721	0.249	0.995	
Nickel	301	0.249	0.995	
Selenium	ND	0.746	0.995	
Silver	ND	0.249	0.995	
Thallium	ND	0.746	0.995	
Vanadium	28.5	0.249	0.995	
Zinc	222	0.995	0.995	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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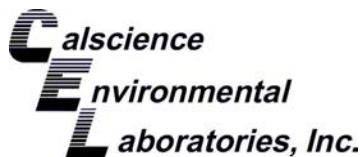
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1069	14-05-2144-5-A	05/29/14 11:15	Solid	ICP 7300	05/29/14	05/30/14 16:59	140529L02

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.746	0.995	
Arsenic	2.67	0.746	0.995	
Barium	166	0.498	0.995	
Beryllium	0.356	0.249	0.995	
Cadmium	ND	0.498	0.995	
Chromium	20.8	0.249	0.995	
Cobalt	11.9	0.249	0.995	
Copper	108	0.498	0.995	
Lead	109	0.498	0.995	
Molybdenum	0.398	0.249	0.995	
Nickel	21.6	0.249	0.995	
Selenium	ND	0.746	0.995	
Silver	ND	0.249	0.995	
Thallium	ND	0.746	0.995	
Vanadium	33.4	0.249	0.995	
Zinc	166	0.995	0.995	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1070	14-05-2144-6-A	05/29/14 11:18	Solid	ICP 7300	05/29/14	05/30/14 17:04	140529L02

Parameter	Result	RL	DF	Qualifiers
Antimony	293	0.754	1.01	
Arsenic	39.9	0.754	1.01	
Barium	3520	0.503	1.01	
Beryllium	ND	0.251	1.01	
Cadmium	16.5	0.503	1.01	
Chromium	123	0.251	1.01	
Cobalt	38.4	0.251	1.01	
Copper	1250	0.503	1.01	
Molybdenum	4.51	0.251	1.01	
Nickel	405	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	22.4	0.251	1.01	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1070	14-05-2144-6-A	05/29/14 11:18	Solid	ICP 7300	05/29/14	05/30/14 17:24	140529L02

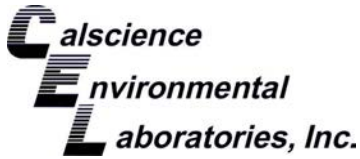
Parameter	Result	RL	DF	Qualifiers
Lead	13500	50.3	101	
Zinc	12500	101	101	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1071	14-05-2144-7-A	05/29/14 11:22	Solid	ICP 7300	05/29/14	05/30/14 17:05	140529L02

Parameter	Result	RL	DF	Qualifiers
Antimony	24.8	0.743	0.990	
Arsenic	14.0	0.743	0.990	
Barium	688	0.495	0.990	
Beryllium	ND	0.248	0.990	
Cadmium	4.18	0.495	0.990	
Chromium	138	0.248	0.990	
Cobalt	33.8	0.248	0.990	
Copper	933	0.495	0.990	
Lead	1610	0.495	0.990	
Molybdenum	5.69	0.248	0.990	
Nickel	276	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	25.4	0.248	0.990	
Zinc	2650	0.990	0.990	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

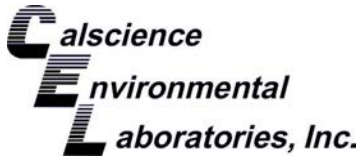
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1072	14-05-2144-8-A	05/29/14 11:25	Solid	ICP 7300	05/29/14	05/30/14 17:06	140529L02

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	ND	0.754	1.01	
Barium	79.7	0.503	1.01	
Beryllium	0.360	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	9.92	0.251	1.01	
Cobalt	2.61	0.251	1.01	
Copper	75.7	0.503	1.01	
Lead	88.5	0.503	1.01	
Molybdenum	0.522	0.251	1.01	
Nickel	18.8	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	3.47	0.251	1.01	
Zinc	233	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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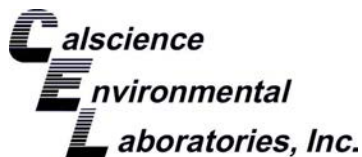
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1073	14-05-2144-9-A	05/29/14 11:26	Solid	ICP 7300	05/29/14	05/30/14 17:07	140529L02

Parameter	Result	RL	DF	Qualifiers
Antimony	2050	0.746	0.995	
Arsenic	32.8	0.746	0.995	
Barium	202	0.498	0.995	
Beryllium	ND	0.249	0.995	
Cadmium	ND	0.498	0.995	
Chromium	21.5	0.249	0.995	
Cobalt	9.66	0.249	0.995	
Copper	198	0.498	0.995	
Molybdenum	1.29	0.249	0.995	
Nickel	25.2	0.249	0.995	
Selenium	ND	0.746	0.995	
Silver	0.617	0.249	0.995	
Thallium	ND	0.746	0.995	
Vanadium	27.3	0.249	0.995	
Zinc	389	0.995	0.995	

Parameter	Result	RL	DF	Qualifiers
Lead	16100	49.8	99.5	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

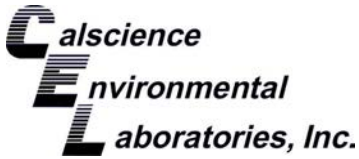
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18425	N/A	Solid	ICP 7300	05/29/14	05/30/14 16:33	140529L02

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

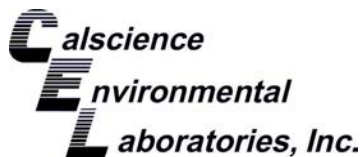
Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1066	14-05-2144-2-A	05/29/14 11:04	Solid	Mercury 04	05/29/14	05/29/14 20:55	140529L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0794	1.00			
#1067	14-05-2144-3-A	05/29/14 11:06	Solid	Mercury 04	05/29/14	05/29/14 20:57	140529L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.155	0.0820	1.00			
#1068	14-05-2144-4-A	05/29/14 11:12	Solid	Mercury 04	05/29/14	05/29/14 20:59	140529L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.262	0.0781	1.00			
#1069	14-05-2144-5-A	05/29/14 11:15	Solid	Mercury 04	05/29/14	05/29/14 21:01	140529L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.153	0.0847	1.00			
#1070	14-05-2144-6-A	05/29/14 11:18	Solid	Mercury 04	05/29/14	05/30/14 16:07	140529L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		4.16	0.820	10.0			
#1071	14-05-2144-7-A	05/29/14 11:22	Solid	Mercury 04	05/29/14	05/29/14 21:06	140529L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.735	0.0806	1.00			
#1072	14-05-2144-8-A	05/29/14 11:25	Solid	Mercury 04	05/29/14	05/29/14 21:08	140529L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.392	0.0781	1.00			
#1073	14-05-2144-9-A	05/29/14 11:26	Solid	Mercury 04	05/29/14	05/29/14 21:10	140529L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.297	0.0806	1.00			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

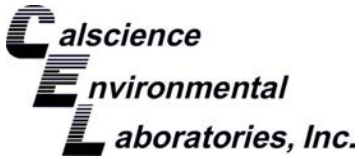
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-272-268	N/A	Solid	Mercury 04	05/29/14	05/29/14 20:23	140529L06

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0833	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1066	14-05-2144-2-A	05/29/14 11:04	Solid	GC 58	05/29/14	05/31/14 10:51	140529L13

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	500	1.00	
Aroclor-1221	ND	500	1.00	
Aroclor-1232	ND	500	1.00	
Aroclor-1242	ND	500	1.00	
Aroclor-1248	ND	500	1.00	
Aroclor-1254	ND	500	1.00	
Aroclor-1260	ND	500	1.00	
Aroclor-1262	ND	500	1.00	
Aroclor-1268	ND	500	1.00	

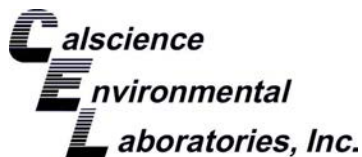
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	62	60-125	
2,4,5,6-Tetrachloro-m-Xylene	81	50-130	

#1067	14-05-2144-3-A	05/29/14 11:06	Solid	GC 58	05/29/14	05/31/14 11:09	140529L13
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	128	60-125	2,7
2,4,5,6-Tetrachloro-m-Xylene	97	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1068	14-05-2144-4-A	05/29/14 11:12	Solid	GC 58	05/29/14	05/31/14 11:44	140529L13

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

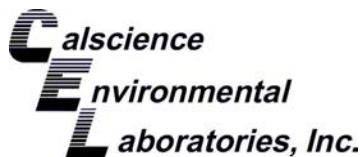
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	113	60-125	
2,4,5,6-Tetrachloro-m-Xylene	98	50-130	

#1069	14-05-2144-5-A	05/29/14 11:15	Solid	GC 58	05/29/14	05/31/14 12:02	140529L13
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	101	60-125	
2,4,5,6-Tetrachloro-m-Xylene	93	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1070	14-05-2144-6-A	05/29/14 11:18	Solid	GC 58	05/29/14	05/31/14 21:08	140529L13

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	490	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

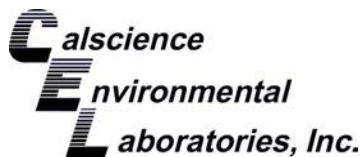
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	105	60-125	
2,4,5,6-Tetrachloro-m-Xylene	107	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1071	14-05-2144-7-A	05/29/14 11:22	Solid	GC 58	05/29/14	05/31/14 12:37	140529L13

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	119	60-125	
2,4,5,6-Tetrachloro-m-Xylene	98	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1072	14-05-2144-8-A	05/29/14 11:25	Solid	GC 58	05/29/14	05/31/14 12:56	140529L13

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

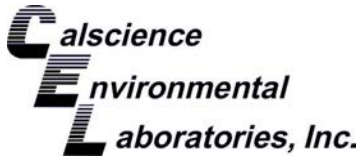
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	113	60-125	
2,4,5,6-Tetrachloro-m-Xylene	106	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1073	14-05-2144-9-A	05/29/14 11:26	Solid	GC 58	05/29/14	05/31/14 13:14	140529L13

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	60-125	
2,4,5,6-Tetrachloro-m-Xylene	103	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

Page 5 of 5

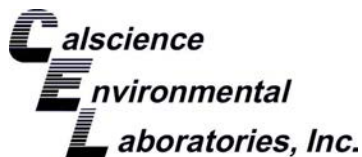
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-003-258	N/A	Solid	GC 58	05/29/14	05/31/14 09:57	140529L13

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	60-125	
2,4,5,6-Tetrachloro-m-Xylene	110	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate / 0106270030

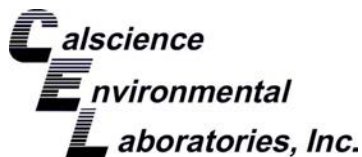
Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-05-2145-5	Sample	Solid	GC 47	05/30/14	05/30/14 13:58	140530S01
14-05-2145-5	Matrix Spike	Solid	GC 47	05/30/14	05/30/14 13:06	140530S01
14-05-2145-5	Matrix Spike Duplicate	Solid	GC 47	05/30/14	05/30/14 13:23	140530S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	412.1	103	409.0	102	64-130	1	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3050B
Method: EPA 6010B

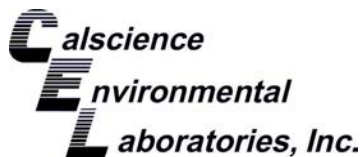
Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
14-05-2145-10	Sample	Solid	ICP 7300	05/29/14	05/30/14 16:52	140529S02				
14-05-2145-10	Matrix Spike	Solid	ICP 7300	05/29/14	05/30/14 16:36	140529S02				
14-05-2145-10	Matrix Spike Duplicate	Solid	ICP 7300	05/29/14	05/30/14 16:37	140529S02				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	15.47	62	12.33	49	50-115	23	0-20	3,4
Arsenic	1.219	25.00	27.13	104	28.68	110	75-125	6	0-20	
Barium	131.1	25.00	161.1	4X	173.3	4X	75-125	4X	0-20	Q
Beryllium	0.3484	25.00	26.72	105	27.25	108	75-125	2	0-20	
Cadmium	ND	25.00	25.33	101	25.77	103	75-125	2	0-20	
Chromium	15.46	25.00	42.54	108	44.62	117	75-125	5	0-20	
Cobalt	10.83	25.00	37.20	105	39.20	113	75-125	5	0-20	
Copper	15.54	25.00	42.86	109	45.73	121	75-125	6	0-20	
Lead	1.288	25.00	25.84	98	26.73	102	75-125	3	0-20	
Molybdenum	ND	25.00	25.48	102	25.85	103	75-125	1	0-20	
Nickel	11.78	25.00	37.73	104	39.89	112	75-125	6	0-20	
Selenium	ND	25.00	21.76	87	22.64	91	75-125	4	0-20	
Silver	ND	12.50	13.14	105	13.29	106	75-125	1	0-20	
Thallium	ND	25.00	19.65	79	20.00	80	75-125	2	0-20	
Vanadium	33.18	25.00	63.20	120	65.64	130	75-125	4	0-20	3
Zinc	46.60	25.00	72.94	105	76.97	122	75-125	5	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate / 0106270030

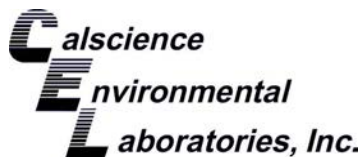
Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-05-1968-1	Sample	Sediment	Mercury 04	05/29/14	05/29/14 20:28	140529S06
14-05-1968-1	Matrix Spike	Sediment	Mercury 04	05/29/14	05/29/14 20:30	140529S06
14-05-1968-1	Matrix Spike Duplicate	Sediment	Mercury 04	05/29/14	05/29/14 20:32	140529S06

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.1071	0.8350	0.9001	95	0.9719	104	76-136	8	0-16	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate / 0106270030

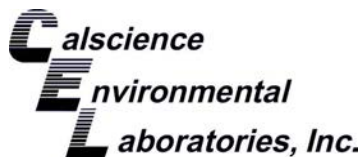
Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1071	Sample	Solid	GC 58	05/29/14	05/31/14 12:37	140529S13
#1071	Matrix Spike	Solid	GC 58	05/29/14	05/31/14 15:19	140529S13
#1071	Matrix Spike Duplicate	Solid	GC 58	05/29/14	05/31/14 15:37	140529S13

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	78.62	79	85.64	86	50-135	9	0-25	
Aroclor-1260	ND	100.0	100.3	100	85.54	86	50-135	16	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3550B
Method: EPA 8015B (M)

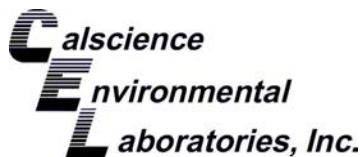
Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-932	LCS	Solid	GC 47	05/30/14	05/30/14 12:49	140530B01

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel	400.0	348.4	87	75-123	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18425	LCS	Solid	ICP 7300	05/29/14	05/30/14 16:34	140529L02
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	26.81	107	80-120	73-127	
Arsenic	25.00	25.81	103	80-120	73-127	
Barium	25.00	26.81	107	80-120	73-127	
Beryllium	25.00	25.57	102	80-120	73-127	
Cadmium	25.00	26.52	106	80-120	73-127	
Chromium	25.00	26.86	107	80-120	73-127	
Cobalt	25.00	28.75	115	80-120	73-127	
Copper	25.00	25.84	103	80-120	73-127	
Lead	25.00	26.56	106	80-120	73-127	
Molybdenum	25.00	26.70	107	80-120	73-127	
Nickel	25.00	28.18	113	80-120	73-127	
Selenium	25.00	23.08	92	80-120	73-127	
Silver	12.50	13.10	105	80-120	73-127	
Thallium	25.00	27.95	112	80-120	73-127	
Vanadium	25.00	25.81	103	80-120	73-127	
Zinc	25.00	26.32	105	80-120	73-127	

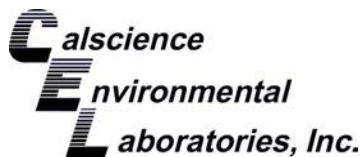
Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14

Work Order: 14-05-2144

Preparation: EPA 7471A Total

Method: EPA 7471A

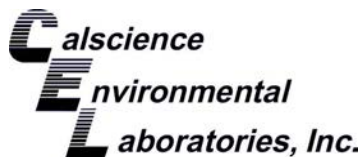
Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-268	LCS	Solid	Mercury 04	05/29/14	05/29/14 20:25	140529L06

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.9030	108	85-121	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

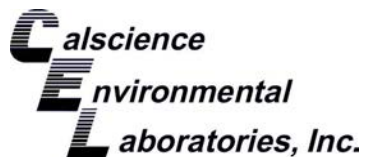
Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-02-003-258	LCS	Solid	GC 58	05/29/14	05/31/14 10:15	140529L13
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	98.11	98	50-135	
Aroclor-1260		100.0	96.14	96	60-130	

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Sample Analysis Summary Report

Work Order: 14-05-2144

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 04	1
EPA 8015B (M)	EPA 3550B	682	GC 47	1
EPA 8082	EPA 3540C	421	GC 58	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-05-2144

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CHAIN-OF-CUSTODY RECORD

NB 31345

PROJECT NAME: Former Pechiney Cast Plate Facility		DATE: 5-29-14	PAGE 1 OF 1
PROJECT NUMBER: 0106270030		REPORTING REQUIREMENTS:	
RESULTS TO: Linda Conlan		14-05-2144	
TURNAROUND TIME: 48 HR			
SAMPLE SHIPMENT METHOD: lab courier		GEOTRACKER REQUIRED <input type="radio"/> YES <input checked="" type="radio"/> NO	
LABORATORY CONTACT: Steve Nowak		SITE SPECIFIC GLOBAL ID NO.	
LABORATORY ADDRESS:			
LABORATORY PHONE NUMBER:			

SAMPLERS (SIGNATURE): <i>Timberly J. Chumarsky</i>			ANALYSES												CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
DATE	TIME	SAMPLE NUMBER	EPA 8082	HOLD	EPA 8015	Title 22 Metals																
5-29-14	0842	876-III-B-D-SS-002	X	X	X	X												X		1		
	1104	#1066	X		X	X	X											X		1		
	1106	#1067	X		X	X	X											X		1		
	1112	#1068	X		X	X	X											X		1		
	1115	#1069	X		X	X	X											X		1		
	1118	#1070	X		X	X	X											X		1		
	1122	#1071	X		X	X	X											X		1		
	1125	#1072	X		X	X	X											X		1		
	1126	#1073	X		X	X	X											X		1		
	1258	885-IV																				
	1302																					

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	TOTAL NUMBER OF CONTAINERS:
SIGNATURE: <i>Minerby Chominsky</i>	5/29/14	1400	SIGNATURE: <i>Steve Nowak</i>	5/29/14	1400	19
PRINTED NAME: Minerby Chominsky			PRINTED NAME: Steve Nowak			
COMPANY: AMEC			COMPANY: AMEC			
SIGNATURE: <i>Steven Henry</i>	5/29/14	1530	SIGNATURE: <i>Steve Nowak</i>	5/29/14	1530	
PRINTED NAME: Steven Henry			PRINTED NAME: Steve Nowak			
COMPANY: AMEC			COMPANY: AMEC			
SIGNATURE: <i>Randy W</i>	5/29/14	1800	SIGNATURE: <i>Steve Nowak</i>	5/29/14	1800	
PRINTED NAME: Randy W			PRINTED NAME: Steve Nowak			
COMPANY: AMEC			COMPANY: AMEC			



121 Innovation Drive, Suite 200
Irvine, California 92617-3094
Tel 949.642.0245 Fax 949.642.4474

WORK ORDER #: **14-05-** 2 1 4 4

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 05/29/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2 . 2 °C - 0.3 °C (CF) = 1 . 9 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 676

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____

☐ No (Not Intact)

☒ Not Present

☐ N/A

Checked by: 676

☐ Sample ☐ _____

☐ No (Not Intact)

☒ Not Present

Checked by: 802

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBznnna ☐ 100PJ ☐ 100PJna₂ ☐ _____ ☐ _____ ☐ _____

Air: ☐ Teclar® ☐ Canister **Other:** ☐ _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** 802

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** 659

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znnna: ZnAc₂+NaOH f: Filtered **Scanned by:** 659



Supplemental Report 1

Additional requested analyses are reported as a stand-alone report.



CALSCIENCE

WORK ORDER NUMBER: 14-05-2144

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/06/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



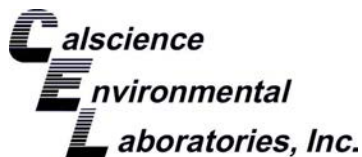
7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501 • www.calscience.com

NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

Client Project Name: Former Pechiney Cast Plate / 0106270030
Work Order Number: 14-05-2144

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Work Order Narrative

Work Order: 14-05-2144

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 05/29/14. They were assigned to Work Order 14-05-2144.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

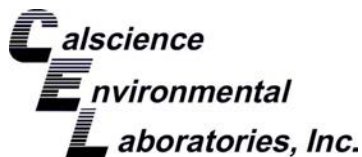
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

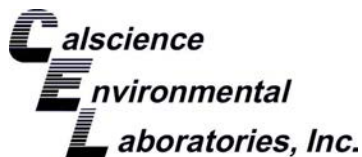
Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-05-2144
Project Name: Former Pechiney Cast Plate / 0106270030
PO Number:
Date/Time Received: 05/29/14 18:00
Number of Containers: 9

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1067	14-05-2144-3	05/29/14 11:06	1	Solid
#1068	14-05-2144-4	05/29/14 11:12	1	Solid
#1069	14-05-2144-5	05/29/14 11:15	1	Solid
#1070	14-05-2144-6	05/29/14 11:18	1	Solid
#1071	14-05-2144-7	05/29/14 11:22	1	Solid
#1072	14-05-2144-8	05/29/14 11:25	1	Solid
#1073	14-05-2144-9	05/29/14 11:26	1	Solid


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Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: T22.11.5. All
Method: EPA 6010B
Units: mg/L

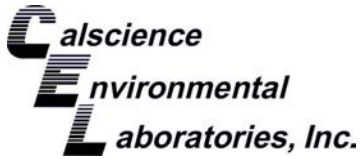
Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1067	14-05-2144-3-A	05/29/14 11:06	Solid	ICP 7300	06/03/14	06/05/14 18:03	140605LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Lead		8.97	0.100	1.00			
#1068	14-05-2144-4-A	05/29/14 11:12	Solid	ICP 7300	06/03/14	06/05/14 18:04	140605LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Lead		3.24	0.100	1.00			
#1069	14-05-2144-5-A	05/29/14 11:15	Solid	ICP 7300	06/03/14	06/05/14 18:10	140605LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Lead		62.4	0.100	1.00			
#1072	14-05-2144-8-A	05/29/14 11:25	Solid	ICP 7300	06/03/14	06/05/14 18:12	140605LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Lead		ND	0.100	1.00			
Method Blank	097-05-006-7287	N/A	Aqueous	ICP 7300	06/03/14	06/05/14 17:49	140605LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Lead		ND	0.100	1.00			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 1311
Method: EPA 6010B
Units: mg/L

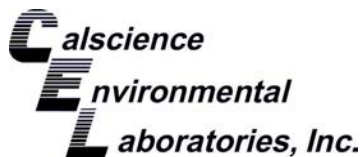
Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1067	14-05-2144-3-A	05/29/14 11:06	Solid	ICP 7300	06/03/14	06/04/14 15:49	140604LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		0.944	0.100		1.00		
#1070	14-05-2144-6-A	05/29/14 11:18	Solid	ICP 7300	06/03/14	06/04/14 15:55	140604LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		6.55	0.100		1.00		
#1071	14-05-2144-7-A	05/29/14 11:22	Solid	ICP 7300	06/03/14	06/04/14 15:57	140604LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		9.72	0.100		1.00		
#1073	14-05-2144-9-A	05/29/14 11:26	Solid	ICP 7300	06/03/14	06/04/14 15:59	140604LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		2.81	0.100		1.00		
Method Blank	099-14-021-1218	N/A	Aqueous	ICP 7300	06/03/14	06/04/14 15:28	140604LA1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		ND	0.100		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: T22.11.5. All
Method: EPA 6010B

Project: Former Pechiney Cast Plate / 0106270030

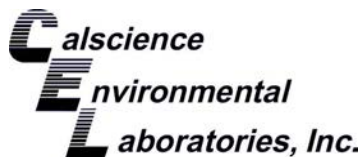
Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-0282-1	Sample	Aqueous	ICP 7300	06/05/14	06/05/14 17:53	140605SA1
14-06-0282-1	Matrix Spike	Aqueous	ICP 7300	06/05/14	06/05/14 17:55	140605SA1
14-06-0282-1	Matrix Spike Duplicate	Aqueous	ICP 7300	06/05/14	06/05/14 17:56	140605SA1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	ND	5.000	5.410	108	5.467	109	75-125	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 1311
Method: EPA 6010B

Project: Former Pechiney Cast Plate / 0106270030

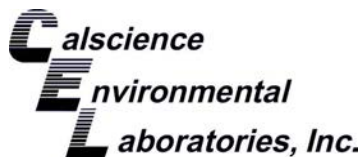
Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1067	Sample	Solid	ICP 7300	06/03/14	06/04/14 15:49	140604SA1
#1067	Matrix Spike	Solid	ICP 7300	06/03/14	06/04/14 15:50	140604SA1
#1067	Matrix Spike Duplicate	Solid	ICP 7300	06/03/14	06/04/14 15:52	140604SA1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	0.9435	5.000	6.490	111	5.605	93	84-120	15	0-7	4

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

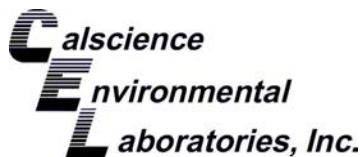
Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: T22.11.5. All
Method: EPA 6010B

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-05-006-7287	LCS	Aqueous	ICP 7300	06/03/14	06/05/14 17:51	140605LA1
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead		5.000	5.622	112	80-120	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

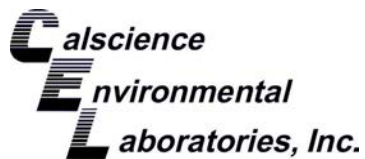
Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 1311
Method: EPA 6010B

Project: Former Pechiney Cast Plate / 0106270030

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-021-1218	LCS	Aqueous	ICP 7300	06/03/14	06/04/14 15:30	140604LA1
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead		5.000	5.330	107	80-120	

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Sample Analysis Summary Report

Work Order: 14-05-2144Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 1311	469	ICP 7300	1
EPA 6010B	T22.11.5. All	469	ICP 7300	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-05-2144

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Stephen Nowak

From: Holland, Kim [Kim.Holland@amec.com]
Sent: Tuesday, June 03, 2014 11:15 AM
To: Stephen Nowak
Subject: RE: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Steve,

Please run STLC Pb on the following samples: #1067, #1068, #1069, and #1072

Please run TCLP Pb on the following samples: #1067, #1070, #1071, and #1073

From: Stephen Nowak [StephenNowak@eurofinsUS.com]
Sent: Monday, June 02, 2014 5:26 PM
To: Costamagna, Daniel G; Holland, Kim; Conlan, Linda; Huang, Stephen; Lee, Zhur
Subject: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Report, EDD, and Invoice are attached.

Stephen Nowak
 Project Manager

Calscience
 7440 Lincoln Way
 GARDEN GROVE, CA 92841
 USA
 Phone: +1 714 895 5494
 Mobile: +1 714 904 5230

Email: StephenNowak@EurofinsUS.com
 Website: www.calscience.com

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Click [here](#) to report this email as spam.

CHAIN-OF-CUSTODY RECORD

NB 31345

PROJECT NAME: Former Pechiney Cast Plate Facility DATE: 5-29-14 PAGE 1 OF 1

PROJECT NUMBER: 0106270030 CLIENT INFORMATION: AMEC

RESULTS TO: Linda Conlan LABORATORY NAME: Cal Science

TURNAROUND TIME: 48 HR LABORATORY ADDRESS:

SAMPLE SHIPMENT METHOD: lab courier LABORATORY CONTACT: Steve Nowak

LABORATORY PHONE NUMBER:

GEOTRACKER REQUIRED YES ☐ NO ☒

SITE SPECIFIC GLOBAL ID NO.

14-05-2144

SAMPLERS (SIGNATURE):			ANALYSES										CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
DATE	TIME	SAMPLE NUMBER	EPA 8082	EPA 8015	Trace Metals															
5-29-14	0842	876-III-B-0-SS-002	X	X	X								4 oz glass jar	S			X		1	
	1104	#1066	X	X	X									O			X		1	
	1106	#1067	X	X	X									S			X		1	
	1112	#1068	X	X	X									S			X		1	
	1115	#1069	X	X	X									S			X		1	
	1118	#1070	X	X	X									S			X		1	
	1122	#1071	X	X	X									S			X		1	
	1125	#1072	X	X	X									O			X		1	
	1126	#1073	X	X	X									S			X		1	
	1258	885-IV																		
	1302																			

RELINQUISHED BY: Minerva Chominsky DATE: 5/29/14 TIME: 1400

SIGNATURE: Minerva Chominsky

PRINTED NAME: Minerva Chominsky

COMPANY: AMEC

RECEIVED BY: Steven Hwang DATE: 5/29/14 TIME: 1400

SIGNATURE: Steven Hwang

PRINTED NAME: Steven Hwang

COMPANY: AMEC

TOTAL NUMBER OF CONTAINERS: 9

SAMPLING COMMENTS:

SIGNATURE: Steve Nowak DATE: 5/29/14 TIME: 1530

PRINTED NAME: Steve Nowak

COMPANY: AMEC

SIGNATURE: Steve Nowak DATE: 5/29/14 TIME: 1800

PRINTED NAME: Steve Nowak

COMPANY: AMEC

121 Innovation Drive, Suite 200
Irvine, California 92617-3094
Tel 949.642.0245 Fax 949.642.4474

amec

WORK ORDER #: **14-05-** 2 1 4 4

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 05/29/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2 . 2 °C - 0.3 °C (CF) = 1 . 9 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 676

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____

☐ No (Not Intact)

☒ Not Present

☐ N/A

Checked by: 676

☐ Sample ☐ _____

☐ No (Not Intact)

☒ Not Present

Checked by: 802

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBznnna ☐ 100PJ ☐ 100PJna₂ ☐ _____ ☐ _____ ☐ _____

Air: ☐ Teclar® ☐ Canister **Other:** ☐ _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** 802

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope

Reviewed by: 659

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znnna: ZnAc₂+NaOH f: Filtered

Scanned by: 659



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Supplemental Report 2

Additional requested analyses are reported as a stand-alone report.



WORK ORDER NUMBER: 14-05-2144

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/12/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



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Client Project Name: Former Pechiney Cast Plate / 0106270030
 Work Order Number: 14-05-2144

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Work Order: 14-05-2144

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 05/29/14. They were assigned to Work Order 14-05-2144.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client:	AMEC Environment & Infrastructure	Work Order:	14-05-2144
	121 Innovation Drive, Suite 200	Project Name:	Former Pechiney Cast Plate / 0106270030
	Irvine, CA 92617-3094	PO Number:	
		Date/Time Received:	05/29/14 18:00
		Number of Containers:	9

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1069	14-05-2144-5	05/29/14 11:15	1	Solid

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 05/29/14
 Work Order: 14-05-2144
 Preparation: EPA 1311
 Method: EPA 6010B
 Units: mg/L

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1069	14-05-2144-5-A	05/29/14 11:15	Solid	ICP 7300	06/09/14	06/10/14 15:44	140610LA1

Parameter	Result	RL	DF	Qualifiers
Lead	0.804	0.100	1.00	

Method Blank	099-14-021-1221	N/A	Aqueous	ICP 7300	06/09/14	06/10/14 15:27	140610LA1
--------------	-----------------	-----	---------	----------	----------	----------------	-----------

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14

Work Order: 14-05-2144

Preparation: EPA 1311

Method: EPA 6010B

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-0594-1	Sample	Solid	ICP 7300	06/09/14	06/10/14 15:30	140610SA1
14-06-0594-1	Matrix Spike	Solid	ICP 7300	06/09/14	06/10/14 15:32	140610SA1
14-06-0594-1	Matrix Spike Duplicate	Solid	ICP 7300	06/09/14	06/10/14 15:33	140610SA1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	ND	5.000	5.274	105	4.750	95	84-120	10	0-7	4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 1311
Method: EPA 6010B

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-021-1221	LCS	Aqueous	ICP 7300	06/09/14	06/10/14 15:28	140610LA1

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead	5.000	5.382	108	80-120	

Sample Analysis Summary Report

Work Order: 14-05-2144

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 1311	469	ICP 7300	1


Return to Contents

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-05-2144

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Stephen Nowak

From: Holland, Kim [Kim.Holland@amec.com]
Sent: Monday, June 09, 2014 9:38 AM
To: Stephen Nowak
Subject: RE: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Please add lead TCLP to sample #1069 on rush TAT.

Thanks.

Kim

From: Stephen Nowak [StephenNowak@eurofinsUS.com]
Sent: Friday, June 06, 2014 2:21 PM
To: Costamagna, Daniel G; Holland, Kim; Conlan, Linda; Huang, Stephen; Lee, Zhur
Subject: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Report, EDD, and Invoice are attached.

Stephen Nowak
 Project Manager

Eurofins Calscience, Inc.
 7440 Lincoln Way
 GARDEN GROVE, CA 92841
 USA
 Phone: +1 714 895 5494
 Mobile: +1 714 904 5230

Email: StephenNowak@EurofinsUS.com
 Website: www.calscience.com

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Stephen Nowak

From: Holland, Kim [Kim.Holland@amec.com]
Sent: Tuesday, June 03, 2014 11:15 AM
To: Stephen Nowak
Subject: RE: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Steve,

Please run STLC Pb on the following samples: #1067, #1068, #1069, and #1072

Please run TCLP Pb on the following samples: #1067, #1070, #1071, and #1073

From: Stephen Nowak [StephenNowak@eurofinsUS.com]
Sent: Monday, June 02, 2014 5:26 PM
To: Costamagna, Daniel G; Holland, Kim; Conlan, Linda; Huang, Stephen; Lee, Zhur
Subject: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Report, EDD, and Invoice are attached.

Stephen Nowak
 Project Manager

Calscience
 7440 Lincoln Way
 GARDEN GROVE, CA 92841
 USA
 Phone: +1 714 895 5494
 Mobile: +1 714 904 5230

Email: StephenNowak@EurofinsUS.com
 Website: www.calscience.com

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CHAIN-OF-CUSTODY RECORD

NB 31345

PROJECT NAME: Former Pechiney Cast Plate Facility		DATE: 5-29-14	PAGE: 1 OF 1
PROJECT NUMBER: 0106270030		REPORTING REQUIREMENTS:	
RESULTS TO: Linda Conlan		14-05-2144	
TURNAROUND TIME: 48 HR			
SAMPLE SHIPMENT METHOD: lab courier		GEOTRACKER REQUIRED: YES <input type="radio"/> NO <input checked="" type="radio"/>	
LABORATORY CONTACT: Steve Nowak		SITE SPECIFIC GLOBAL ID NO.	
LABORATORY ADDRESS:			
LABORATORY PHONE NUMBER:			

SAMPLERS (SIGNATURE):		ANALYSES										CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
DATE	TIME	SAMPLE NUMBER	EPA 8082	EPA 8015	Trace Metals														
5-29-14	0842	876-III-B-0-SS-002	X	X	X							4 oz glass jar	S			X		1	
	1104	#1066	X	X	X								O			X		1	
	1106	#1067	X	X	X								S			X		1	
	1112	#1068	X	X	X								S			X		1	
	1115	#1069	X	X	X								S			X		1	
	1118	#1070	X	X	X								S			X		1	
	1122	#1071	X	X	X								S			X		1	
	1125	#1072	X	X	X								O			X		1	
	1126	#1073	X	X	X								S			X		1	
	1258	885-IV																	
	1302																		

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	TOTAL NUMBER OF CONTAINERS:
SIGNATURE: <i>Minerby Chominsky</i>	5/29/14	1400	SIGNATURE: <i>Steve Nowak</i>	5/29/14	1400	19
PRINTED NAME: Minerby Chominsky			PRINTED NAME: Steve Nowak			
COMPANY: AMEC			COMPANY: AMEC			
SIGNATURE: <i>Steven Henry</i>	5/29/14	1530	SIGNATURE: <i>Steve Nowak</i>	5/29/14	1530	
PRINTED NAME: Steven Henry			PRINTED NAME: Steve Nowak			
COMPANY: AMEC			COMPANY: AMEC			
SIGNATURE: <i>Randy W</i>	5/29/14	1800	SIGNATURE: <i>Randy W</i>	5/29/14	1800	
PRINTED NAME: Randy W			PRINTED NAME: Randy W			
COMPANY: AMEC			COMPANY: AMEC			



121 Innovation Drive, Suite 200
Irvine, California 92617-3094
Tel 949.642.0245 Fax 949.642.4474

WORK ORDER #: **14-05-**2144

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 05/29/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.2 °C - 0.3 °C (CF) = 1.9 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 676

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____

☐ No (Not Intact)

☒ Not Present

☐ N/A

Checked by: 676

☐ Sample ☐ _____

☐ No (Not Intact)

☒ Not Present

Checked by: 802

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBznnna ☐ 100PJ ☐ 100PJna₂ ☐ _____ ☐ _____ ☐ _____

Air: ☐ Teclar® ☐ Canister **Other:** ☐ _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** 802

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** 659

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znnna: ZnAc₂+NaOH f: Filtered **Scanned by:** 659



Calscience

Supplemental Report 3

Additional requested analyses have been added to the original report.



WORK ORDER NUMBER: 14-05-2144

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/24/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



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Work Order Number: 14-05-2144

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6	Glossary of Terms and Qualifiers.	9
7	Chain-of-Custody/Sample Receipt Form.	10

Work Order Narrative

Work Order: 14-05-2144

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 05/29/14. They were assigned to Work Order 14-05-2144.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: AMEC Environment & Infrastructure 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order: 14-05-2144 Project Name: Former Pechiney Cast Plate / 0106270030 PO Number: Date/Time Received: 05/29/14 18:00 Number of Containers: 9
---	--

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
876-IIIB-O-SS-002	14-05-2144-1	05/29/14 08:42	1	Solid
#1070	14-05-2144-6	05/29/14 11:18	1	Solid

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 05/29/14
 Work Order: 14-05-2144
 Preparation: EPA 1311
 Method: EPA 7470A
 Units: mg/L

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1070	14-05-2144-6-A	05/29/14 11:18	Solid	Mercury 04	06/03/14	06/23/14 19:08	140623L02A

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.00500	1.00	

Method Blank	099-04-005-779	N/A	Aqueous	Mercury 04	06/03/14	06/23/14 18:17	140623L02A
--------------	----------------	-----	---------	------------	----------	----------------	------------

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.00500	1.00	



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 1311
Method: EPA 7470A

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-1450-1	Sample	Solid	Mercury 04	06/19/14	06/23/14 18:21	140323S02
14-06-1450-1	Matrix Spike	Solid	Mercury 04	06/19/14	06/23/14 18:28	140323S02
14-06-1450-1	Matrix Spike Duplicate	Solid	Mercury 04	06/19/14	06/23/14 18:30	140323S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.05000	0.04621	92	0.04458	89	71-134	4	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 05/29/14
Work Order: 14-05-2144
Preparation: EPA 1311
Method: EPA 7470A

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-005-779	LCS	Aqueous	Mercury 04	06/03/14	06/23/14 18:19	140623L02A

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.05000	0.05298	106	90-122	

Sample Analysis Summary Report

Work Order: 14-05-2144

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 7470A	EPA 1311	776	Mercury 04	1


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Glossary of Terms and Qualifiers

Work Order: 14-05-2144

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Stephen Nowak

From: Holland, Kim [Kim.Holland@amec.com]
Sent: Friday, June 20, 2014 9:37 AM
To: Stephen Nowak
Subject: RE: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Hi, Steve:

Please add TCLP for barium, chromium, and mercury for sample #1070.

Please add TCLP for chromium for sample #1071.

Quickest turnaround possible please. Thanks,

Kim

From: Stephen Nowak [<mailto:StephenNowak@eurofinsUS.com>]
Sent: Monday, June 02, 2014 5:27 PM
To: Costamagna, Daniel G; Holland, Kim; Conlan, Linda; Huang, Stephen; Lee, Zhur
Subject: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Report, EDD, and Invoice are attached.

Stephen Nowak
 Project Manager

Calscience
 7440 Lincoln Way
 GARDEN GROVE, CA 92841
 USA
 Phone: +1 714 895 5494
 Mobile: +1 714 904 5230

Email: StephenNowak@EurofinsUS.com
 Website: www.calscience.com

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Stephen Nowak

From: Holland, Kim [Kim.Holland@amec.com]
Sent: Monday, June 09, 2014 9:38 AM
To: Stephen Nowak
Subject: RE: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Please add lead TCLP to sample #1069 on rush TAT.

Thanks.

Kim

From: Stephen Nowak [StephenNowak@eurofinsUS.com]
Sent: Friday, June 06, 2014 2:21 PM
To: Costamagna, Daniel G; Holland, Kim; Conlan, Linda; Huang, Stephen; Lee, Zhur
Subject: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Report, EDD, and Invoice are attached.

Stephen Nowak
 Project Manager

Eurofins Calscience, Inc.
 7440 Lincoln Way
 GARDEN GROVE, CA 92841
 USA
 Phone: +1 714 895 5494
 Mobile: +1 714 904 5230

Email: StephenNowak@EurofinsUS.com
 Website: www.calscience.com

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Stephen Nowak

From: Holland, Kim [Kim.Holland@amec.com]
Sent: Tuesday, June 03, 2014 11:15 AM
To: Stephen Nowak
Subject: RE: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Steve,

Please run STLC Pb on the following samples: #1067, #1068, #1069, and #1072

Please run TCLP Pb on the following samples: #1067, #1070, #1071, and #1073

From: Stephen Nowak [StephenNowak@eurofinsUS.com]
Sent: Monday, June 02, 2014 5:26 PM
To: Costamagna, Daniel G; Holland, Kim; Conlan, Linda; Huang, Stephen; Lee, Zhur
Subject: Former Pechiney Cast Plate / 0106270030 / CEL 14-05-2144

Report, EDD, and Invoice are attached.

Stephen Nowak
 Project Manager

Calscience
 7440 Lincoln Way
 GARDEN GROVE, CA 92841
 USA
 Phone: +1 714 895 5494
 Mobile: +1 714 904 5230

Email: StephenNowak@EurofinsUS.com
 Website: www.calscience.com

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CHAIN-OF-CUSTODY RECORD

NB 31345

PROJECT NAME: Former Pechiney Cast Plate Facility		DATE: 5-29-14	PAGE 1 OF 1
PROJECT NUMBER: 0106270030		REPORTING REQUIREMENTS:	
RESULTS TO: Linda Conlan		14-05-2144	
TURNAROUND TIME: 48 HR			
SAMPLE SHIPMENT METHOD: lab courier		GEOTRACKER REQUIRED YES NO	
LABORATORY CONTACT: Steve Nowak		SITE SPECIFIC GLOBAL ID NO.	
LABORATORY PHONE NUMBER:			

SAMPLERS (SIGNATURE):		ANALYSES										CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
DATE	TIME	SAMPLE NUMBER	EPA 8082	EPA 8015	Trace Metals														
5-29-14	0842	876-III-B-0-SS-002	X	X	X							4 oz glass jar	S			X		1	
	1104	#1066	X	X	X								O			X		1	
	1106	#1067	X	X	X								S			X		1	
	1112	#1068	X	X	X								S			X		1	
	1115	#1069	X	X	X								S			X		1	
	1118	#1070	X	X	X								S			X		1	
	1122	#1071	X	X	X								S			X		1	
	1125	#1072	X	X	X								O			X		1	
	1126	#1073	X	X	X								S			X		1	
	1258	885-IV																	
	1302																		

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	TOTAL NUMBER OF CONTAINERS:
SIGNATURE: <i>Kimberly Chaminsky</i>	5/29/14	1400	SIGNATURE: <i>Steve Nowak</i>	5/29/14	1400	19
PRINTED NAME: Kimberly Chaminsky			PRINTED NAME: Steve Nowak			
COMPANY: AMEC			COMPANY: AMEC			
SIGNATURE: <i>Steve Nowak</i>	5/29/14	1530	SIGNATURE: <i>Steve Nowak</i>	5/29/14	1530	
PRINTED NAME: Steve Nowak			PRINTED NAME: Steve Nowak			
COMPANY: AMEC			COMPANY: AMEC			
SIGNATURE: <i>Steve Nowak</i>	5/29/14	1800	SIGNATURE: <i>Steve Nowak</i>	5/29/14	1800	
PRINTED NAME: Steve Nowak			PRINTED NAME: Steve Nowak			
COMPANY: AMEC			COMPANY: AMEC			



121 Innovation Drive, Suite 200
Irvine, California 92617-3094
Tel 949.642.0245 Fax 949.642.4474

WORK ORDER #: **14-05-** 2 1 4 4

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 05/29/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2 . 2 °C - 0.3 °C (CF) = 1 . 9 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 676

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____

☐ No (Not Intact)

☒ Not Present

☐ N/A

Checked by: 676

☐ Sample ☐ _____

☐ No (Not Intact)

☒ Not Present

Checked by: 802

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBz_{nn}a ☐ 100PJ ☐ 100PJna₂ ☐ _____ ☐ _____ ☐ _____

Air: ☐ Teclar® ☐ Canister **Other:** ☐ _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** 802

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** 659

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure z_{nn}a: ZnAc₂+NaOH f: Filtered **Scanned by:** 659



CALSCIENCE

WORK ORDER NUMBER: 14-06-0199

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/06/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



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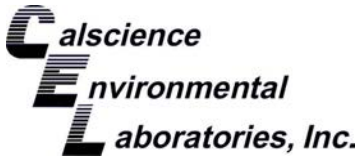
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NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

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Work Order Number: 14-06-0199

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Work Order Narrative

Work Order: 14-06-0199

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/03/14. They were assigned to Work Order 14-06-0199.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the CalScience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

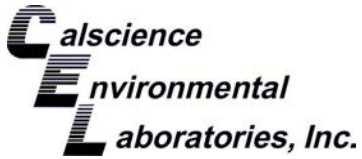
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

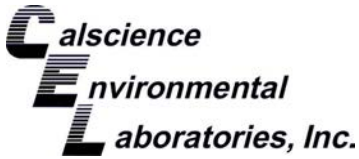
Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0199
Project Name: Former Pechiney Cast Plate / 0106270030
PO Number:
Date/Time Received: 06/03/14 18:00
Number of Containers: 13

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
886-V-O-CS-001	14-06-0199-1	06/03/14 07:25	1	Concrete
886-V-O-CS-002	14-06-0199-2	06/03/14 07:30	1	Concrete
293-IIIA-P/S-CS-034	14-06-0199-3	06/03/14 07:45	1	Concrete
293-IIIA-P/S-CS-035	14-06-0199-4	06/03/14 07:52	1	Concrete
#1090	14-06-0199-5	06/03/14 09:32	1	Solid
#1091	14-06-0199-6	06/03/14 09:34	1	Solid
#1092	14-06-0199-7	06/03/14 09:36	1	Solid
#1093	14-06-0199-8	06/03/14 09:33	1	Solid
#1094	14-06-0199-9	06/03/14 09:34	1	Solid
#1095	14-06-0199-10	06/03/14 09:35	1	Solid
#1096	14-06-0199-11	06/03/14 09:37	1	Solid
#1097	14-06-0199-12	06/03/14 09:40	1	Solid
#1098	14-06-0199-13	06/03/14 09:39	1	Solid

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Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0199
Project Name: Former Pechiney Cast Plate / 0106270030
Received: 06/03/14

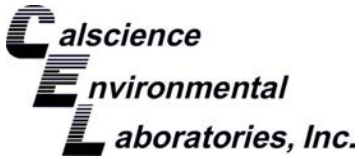
Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
886-V-O-CS-001 (14-06-0199-1)						
Aroclor-1248	140		50	ug/kg	EPA 8082	EPA 3540C
293-III-A-P/S-CS-035 (14-06-0199-4)						
Aroclor-1248	140		50	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	97		50	ug/kg	EPA 8082	EPA 3540C
#1090 (14-06-0199-5)						
Arsenic	2.47		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	119		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.352		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	47.8		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	12.5		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	71.2		1.00	mg/kg	EPA 6010B	EPA 3050B
C19-C20	5.5		5.1	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	13		5.1	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	16		5.1	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	25		5.1	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	36		5.1	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	26		5.1	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	130		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1248	110		50	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	240		50	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	180		50	ug/kg	EPA 8082	EPA 3540C
#1091 (14-06-0199-6)						
Arsenic	1.37		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	103		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.290		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.6		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.32		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	12.0		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	0.910		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	9.34		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	43.5		0.990	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0199
Project Name: Former Pechiney Cast Plate / 0106270030
Received: 06/03/14

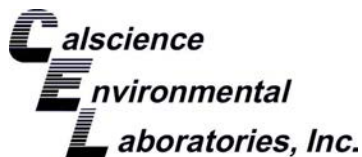
Attn: Linda Conlan

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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
#1092 (14-06-0199-7)						
Arsenic	1.13		0.728	mg/kg	EPA 6010B	EPA 3050B
Barium	108		0.485	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.288		0.243	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.3		0.243	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.87		0.243	mg/kg	EPA 6010B	EPA 3050B
Copper	12.9		0.485	mg/kg	EPA 6010B	EPA 3050B
Lead	0.671		0.485	mg/kg	EPA 6010B	EPA 3050B
Nickel	9.58		0.243	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.6		0.243	mg/kg	EPA 6010B	EPA 3050B
Zinc	46.0		0.971	mg/kg	EPA 6010B	EPA 3050B
#1093 (14-06-0199-8)						
Arsenic	1.79		0.718	mg/kg	EPA 6010B	EPA 3050B
Barium	114		0.478	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.343		0.239	mg/kg	EPA 6010B	EPA 3050B
Chromium	14.7		0.239	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.3		0.239	mg/kg	EPA 6010B	EPA 3050B
Copper	14.2		0.478	mg/kg	EPA 6010B	EPA 3050B
Lead	1.18		0.478	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.9		0.239	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.2		0.239	mg/kg	EPA 6010B	EPA 3050B
Zinc	48.4		0.957	mg/kg	EPA 6010B	EPA 3050B
C25-C28	6.3		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	7.5		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	24		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
#1094 (14-06-0199-9)						
Arsenic	1.69		0.721	mg/kg	EPA 6010B	EPA 3050B
Barium	105		0.481	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.319		0.240	mg/kg	EPA 6010B	EPA 3050B
Chromium	14.3		0.240	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.1		0.240	mg/kg	EPA 6010B	EPA 3050B
Copper	16.5		0.481	mg/kg	EPA 6010B	EPA 3050B
Lead	0.929		0.481	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.4		0.240	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.9		0.240	mg/kg	EPA 6010B	EPA 3050B
Zinc	45.9		0.962	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0862		0.0833	mg/kg	EPA 7471A	EPA 7471A Total

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0199
Project Name: Former Pechiney Cast Plate / 0106270030
Received: 06/03/14

Attn: Linda Conlan

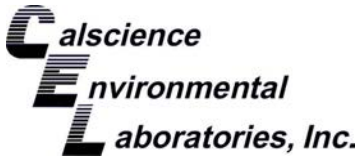
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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
#1095 (14-06-0199-10)						
Arsenic	0.928		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	89.9		0.495	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.6		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.12		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	9.84		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.88		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	28.3		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	37.7		0.990	mg/kg	EPA 6010B	EPA 3050B
#1096 (14-06-0199-11)						
Arsenic	1.32		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	111		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.340		0.251	mg/kg	EPA 6010B	EPA 3050B
Chromium	14.7		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.4		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	15.4		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	1.24		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.1		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.0		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	47.5		1.01	mg/kg	EPA 6010B	EPA 3050B

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* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0199
Project Name: Former Pechiney Cast Plate / 0106270030
Received: 06/03/14

Attn: Linda Conlan

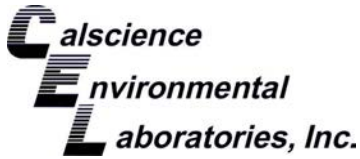
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1097 (14-06-0199-12)						
Arsenic	2.84		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	112		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.278		0.245	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.9		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.53		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	23.2		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	19.5		0.490	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.261		0.245	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.1		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	21.9		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	52.2		0.980	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0938		0.0833	mg/kg	EPA 7471A	EPA 7471A Total
C23-C24	26		25	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	30		25	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	57		25	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	45		25	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	38		25	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	260		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1248	3800		500	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	560		50	ug/kg	EPA 8082	EPA 3540C
#1098 (14-06-0199-13)						
Aroclor-1248	520		50	ug/kg	EPA 8082	EPA 3540C
Aroclor-1254	450		50	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	180		50	ug/kg	EPA 8082	EPA 3540C

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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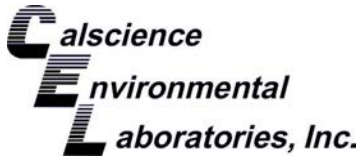
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1090	14-06-0199-5-A	06/03/14 09:32	Solid	GC 48	06/03/14	06/04/14 03:48	140603B12

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.1	1.00	
C7	ND	5.1	1.00	
C8	ND	5.1	1.00	
C9-C10	ND	5.1	1.00	
C11-C12	ND	5.1	1.00	
C13-C14	ND	5.1	1.00	
C15-C16	ND	5.1	1.00	
C17-C18	ND	5.1	1.00	
C19-C20	5.5	5.1	1.00	
C21-C22	13	5.1	1.00	
C23-C24	16	5.1	1.00	
C25-C28	25	5.1	1.00	
C29-C32	36	5.1	1.00	
C33-C36	26	5.1	1.00	
C37-C40	ND	5.1	1.00	
C41-C44	ND	5.1	1.00	
C6-C44 Total	130	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	85	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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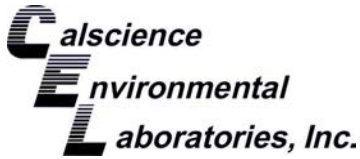
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#1091	14-06-0199-6-A	06/03/14 09:34	Solid	GC 48	06/03/14	06/04/14 04:03	140603B12

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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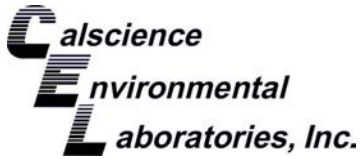
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#1092	14-06-0199-7-A	06/03/14 09:36	Solid	GC 48	06/03/14	06/04/14 04:19	140603B12

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1093	14-06-0199-8-A	06/03/14 09:33	Solid	GC 48	06/03/14	06/04/14 04:35	140603B12

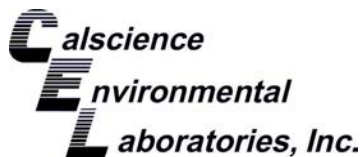
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	6.3	5.0	1.00	
C29-C32	7.5	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	24	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	85	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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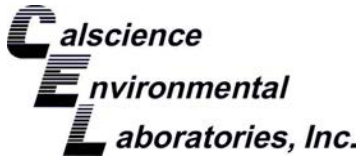
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Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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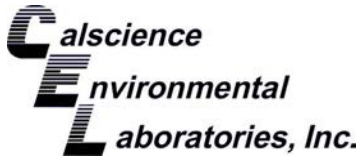
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#1095	14-06-0199-10-A	06/03/14 09:35	Solid	GC 48	06/03/14	06/04/14 05:07	140603B12

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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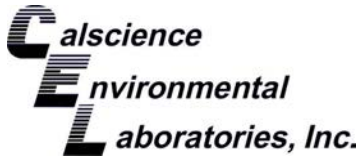
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1096	14-06-0199-11-A	06/03/14 09:37	Solid	GC 48	06/03/14	06/04/14 05:23	140603B12

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1097	14-06-0199-12-A	06/03/14 09:40	Solid	GC 48	06/03/14	06/04/14 05:39	140603B12

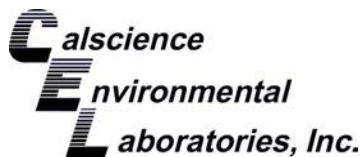
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	25	5.00	
C7	ND	25	5.00	
C8	ND	25	5.00	
C9-C10	ND	25	5.00	
C11-C12	ND	25	5.00	
C13-C14	ND	25	5.00	
C15-C16	ND	25	5.00	
C17-C18	ND	25	5.00	
C19-C20	ND	25	5.00	
C21-C22	ND	25	5.00	
C23-C24	26	25	5.00	
C25-C28	30	25	5.00	
C29-C32	57	25	5.00	
C33-C36	45	25	5.00	
C37-C40	38	25	5.00	
C41-C44	ND	25	5.00	
C6-C44 Total	260	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	96	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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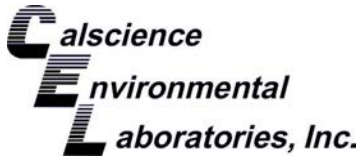
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-490-937	N/A	Solid	GC 48	06/03/14	06/04/14 02:45	140603B12

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	87	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
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Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

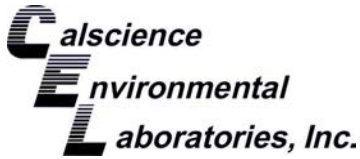
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1090	14-06-0199-5-A	06/03/14 09:32	Solid	ICP 7300	06/03/14	06/04/14 12:55	140603L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	2.47	0.750	1.00	
Barium	119	0.500	1.00	
Beryllium	0.352	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	16.1	0.250	1.00	
Cobalt	10.2	0.250	1.00	
Copper	47.8	0.500	1.00	
Lead	12.5	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	12.5	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	33.5	0.250	1.00	
Zinc	71.2	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

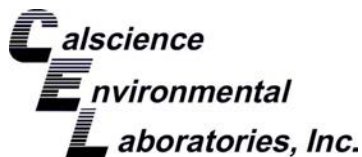
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1091	14-06-0199-6-A	06/03/14 09:34	Solid	ICP 7300	06/03/14	06/04/14 12:56	140603L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	1.37	0.743	0.990	
Barium	103	0.495	0.990	
Beryllium	0.290	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	12.6	0.248	0.990	
Cobalt	9.32	0.248	0.990	
Copper	12.0	0.495	0.990	
Lead	0.910	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	9.34	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	32.1	0.248	0.990	
Zinc	43.5	0.990	0.990	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

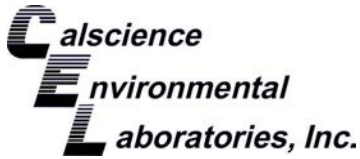
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1092	14-06-0199-7-A	06/03/14 09:36	Solid	ICP 7300	06/03/14	06/04/14 12:57	140603L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.728	0.971	
Arsenic	1.13	0.728	0.971	
Barium	108	0.485	0.971	
Beryllium	0.288	0.243	0.971	
Cadmium	ND	0.485	0.971	
Chromium	13.3	0.243	0.971	
Cobalt	9.87	0.243	0.971	
Copper	12.9	0.485	0.971	
Lead	0.671	0.485	0.971	
Molybdenum	ND	0.243	0.971	
Nickel	9.58	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	ND	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	32.6	0.243	0.971	
Zinc	46.0	0.971	0.971	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

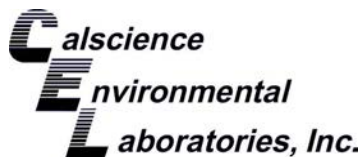
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1093	14-06-0199-8-A	06/03/14 09:33	Solid	ICP 7300	06/03/14	06/04/14 12:58	140603L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.718	0.957	
Arsenic	1.79	0.718	0.957	
Barium	114	0.478	0.957	
Beryllium	0.343	0.239	0.957	
Cadmium	ND	0.478	0.957	
Chromium	14.7	0.239	0.957	
Cobalt	10.3	0.239	0.957	
Copper	14.2	0.478	0.957	
Lead	1.18	0.478	0.957	
Molybdenum	ND	0.239	0.957	
Nickel	10.9	0.239	0.957	
Selenium	ND	0.718	0.957	
Silver	ND	0.239	0.957	
Thallium	ND	0.718	0.957	
Vanadium	35.2	0.239	0.957	
Zinc	48.4	0.957	0.957	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

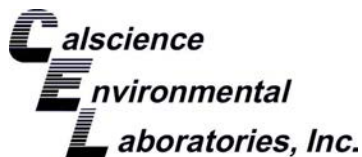
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1094	14-06-0199-9-A	06/03/14 09:34	Solid	ICP 7300	06/03/14	06/04/14 13:03	140603L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.721	0.962	
Arsenic	1.69	0.721	0.962	
Barium	105	0.481	0.962	
Beryllium	0.319	0.240	0.962	
Cadmium	ND	0.481	0.962	
Chromium	14.3	0.240	0.962	
Cobalt	10.1	0.240	0.962	
Copper	16.5	0.481	0.962	
Lead	0.929	0.481	0.962	
Molybdenum	ND	0.240	0.962	
Nickel	10.4	0.240	0.962	
Selenium	ND	0.721	0.962	
Silver	ND	0.240	0.962	
Thallium	ND	0.721	0.962	
Vanadium	33.9	0.240	0.962	
Zinc	45.9	0.962	0.962	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

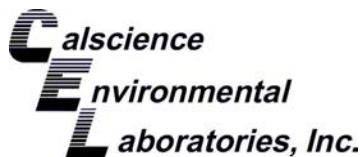
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1095	14-06-0199-10-A	06/03/14 09:35	Solid	ICP 7300	06/03/14	06/04/14 13:04	140603L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	0.928	0.743	0.990	
Barium	89.9	0.495	0.990	
Beryllium	ND	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	10.6	0.248	0.990	
Cobalt	8.12	0.248	0.990	
Copper	9.84	0.495	0.990	
Lead	ND	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	7.88	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	28.3	0.248	0.990	
Zinc	37.7	0.990	0.990	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

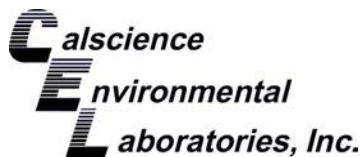
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1096	14-06-0199-11-A	06/03/14 09:37	Solid	ICP 7300	06/03/14	06/04/14 13:06	140603L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	1.32	0.754	1.01	
Barium	111	0.503	1.01	
Beryllium	0.340	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	14.7	0.251	1.01	
Cobalt	10.4	0.251	1.01	
Copper	15.4	0.503	1.01	
Lead	1.24	0.503	1.01	
Molybdenum	ND	0.251	1.01	
Nickel	11.1	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	31.0	0.251	1.01	
Zinc	47.5	1.01	1.01	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

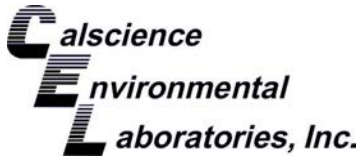
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1097	14-06-0199-12-A	06/03/14 09:40	Solid	ICP 7300	06/03/14	06/04/14 13:07	140603L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	2.84	0.735	0.980	
Barium	112	0.490	0.980	
Beryllium	0.278	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	12.9	0.245	0.980	
Cobalt	6.53	0.245	0.980	
Copper	23.2	0.490	0.980	
Lead	19.5	0.490	0.980	
Molybdenum	0.261	0.245	0.980	
Nickel	10.1	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	21.9	0.245	0.980	
Zinc	52.2	0.980	0.980	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

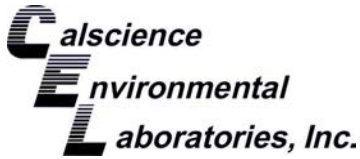
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18446	N/A	Solid	ICP 7300	06/03/14	06/04/14 12:18	140603L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

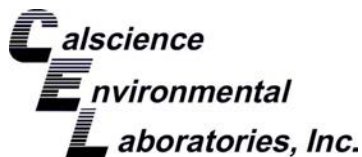
Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1090	14-06-0199-5-a	06/03/14 09:32	Solid	Mercury 05	06/04/14	06/04/14 17:24	140604L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
#1091	14-06-0199-6-a	06/03/14 09:34	Solid	Mercury 05	06/04/14	06/04/14 17:31	140604L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0794	1.00			
#1092	14-06-0199-7-a	06/03/14 09:36	Solid	Mercury 05	06/04/14	06/04/14 17:33	140604L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0806	1.00			
#1093	14-06-0199-8-a	06/03/14 09:33	Solid	Mercury 05	06/04/14	06/04/14 17:35	140604L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			
#1094	14-06-0199-9-a	06/03/14 09:34	Solid	Mercury 05	06/04/14	06/04/14 17:38	140604L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.0862	0.0833	1.00			
#1095	14-06-0199-10-a	06/03/14 09:35	Solid	Mercury 05	06/04/14	06/04/14 17:40	140604L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0806	1.00			
#1096	14-06-0199-11-a	06/03/14 09:37	Solid	Mercury 05	06/04/14	06/04/14 17:47	140604L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0847	1.00			
#1097	14-06-0199-12-a	06/03/14 09:40	Solid	Mercury 05	06/04/14	06/04/14 17:49	140604L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.0938	0.0833	1.00			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

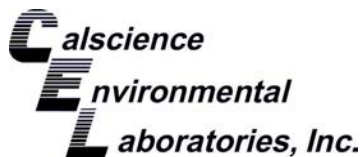
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-272-285	N/A	Solid	Mercury 05	06/04/14	06/04/14 17:20	140604L01

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0833	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
886-V-O-CS-001	14-06-0199-1-A	06/03/14 07:25	Concrete	GC 31	06/03/14	06/05/14 15:45	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	140	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

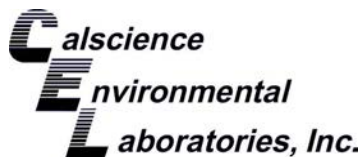
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	60-125	
2,4,5,6-Tetrachloro-m-Xylene	115	50-130	

886-V-O-CS-002	14-06-0199-2-A	06/03/14 07:30	Concrete	GC 31	06/03/14	06/05/14 16:04	140603L19
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	116	60-125	
2,4,5,6-Tetrachloro-m-Xylene	122	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
293-IIIA-P/S-CS-034	14-06-0199-3-A	06/03/14 07:45	Concrete	GC 31	06/03/14	06/05/14 16:24	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

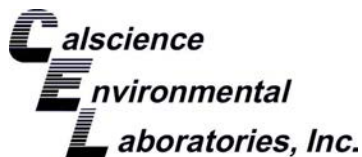
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	113	60-125	
2,4,5,6-Tetrachloro-m-Xylene	120	50-130	

293-IIIA-P/S-CS-035	14-06-0199-4-A	06/03/14 07:52	Concrete	GC 31	06/03/14	06/05/14 16:43	140603L19
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	140	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	97	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	106	60-125	
2,4,5,6-Tetrachloro-m-Xylene	116	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1090	14-06-0199-5-A	06/03/14 09:32	Solid	GC 31	06/03/14	06/05/14 17:02	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	110	50	1.00	
Aroclor-1254	240	50	1.00	
Aroclor-1260	180	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

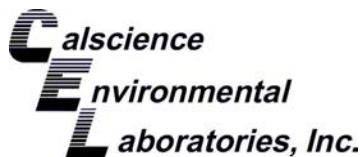
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	60-125	
2,4,5,6-Tetrachloro-m-Xylene	121	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1091	14-06-0199-6-A	06/03/14 09:34	Solid	GC 31	06/03/14	06/05/14 17:21	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	60-125	
2,4,5,6-Tetrachloro-m-Xylene	122	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1092	14-06-0199-7-A	06/03/14 09:36	Solid	GC 31	06/03/14	06/05/14 17:40	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

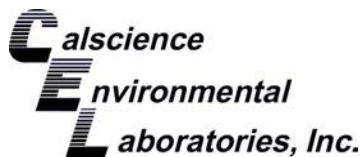
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	60-125	
2,4,5,6-Tetrachloro-m-Xylene	121	50-130	

#1093	14-06-0199-8-A	06/03/14 09:33	Solid	GC 31	06/03/14	06/05/14 17:59	140603L19
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	113	60-125	
2,4,5,6-Tetrachloro-m-Xylene	120	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1094	14-06-0199-9-A	06/03/14 09:34	Solid	GC 31	06/03/14	06/05/14 18:18	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

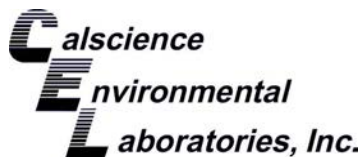
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	132	60-125	2,7
2,4,5,6-Tetrachloro-m-Xylene	138	50-130	2,7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1095	14-06-0199-10-A	06/03/14 09:35	Solid	GC 31	06/03/14	06/05/14 18:37	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	60-125	
2,4,5,6-Tetrachloro-m-Xylene	116	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1096	14-06-0199-11-A	06/03/14 09:37	Solid	GC 31	06/03/14	06/05/14 18:57	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

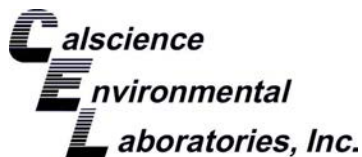
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	151	60-125	2,7
2,4,5,6-Tetrachloro-m-Xylene	155	50-130	2,7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1097	14-06-0199-12-A	06/03/14 09:40	Solid	GC 31	06/03/14	06/05/14 19:16	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	560	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	143	60-125	2,7
2,4,5,6-Tetrachloro-m-Xylene	115	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1097	14-06-0199-12-A	06/03/14 09:40	Solid	GC 31	06/03/14	06/06/14 10:52	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1248	3800	500	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	162	60-125	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	120	50-130	

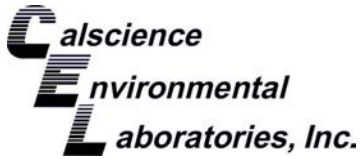
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#1098	14-06-0199-13-A	06/03/14 09:39	Solid	GC 31	06/03/14	06/05/14 19:35	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	520	50	1.00	
Aroclor-1254	450	50	1.00	
Aroclor-1260	180	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	125	60-125	
2,4,5,6-Tetrachloro-m-Xylene	112	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

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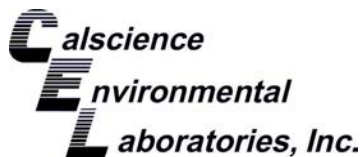
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Method Blank	099-02-003-261	N/A	Solid	GC 31	06/03/14	06/05/14 15:07	140603L19

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	118	60-125	
2,4,5,6-Tetrachloro-m-Xylene	115	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate / 0106270030

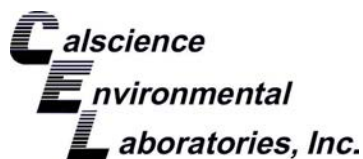
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1096	Sample	Solid	GC 48	06/03/14	06/04/14 05:23	140603S12
#1096	Matrix Spike	Solid	GC 48	06/03/14	06/04/14 03:16	140603S12
#1096	Matrix Spike Duplicate	Solid	GC 48	06/03/14	06/04/14 03:32	140603S12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	318.8	80	329.7	82	64-130	3	0-15	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B

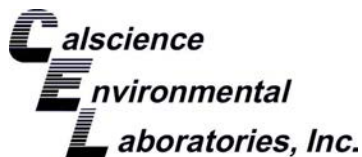
Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
#1090	Sample	Solid	ICP 7300	06/03/14	06/04/14 12:55	140603S05				
#1090	Matrix Spike	Solid	ICP 7300	06/03/14	06/04/14 12:53	140603S05				
#1090	Matrix Spike Duplicate	Solid	ICP 7300	06/03/14	06/04/14 12:54	140603S05				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	13.09	52	14.16	57	50-115	8	0-20	
Arsenic	2.471	25.00	26.72	97	27.47	100	75-125	3	0-20	
Barium	119.2	25.00	144.2	4X	140.8	4X	75-125	4X	0-20	Q
Beryllium	0.3524	25.00	26.20	103	26.86	106	75-125	2	0-20	
Cadmium	ND	25.00	25.25	101	25.88	104	75-125	2	0-20	
Chromium	16.10	25.00	44.00	112	42.61	106	75-125	3	0-20	
Cobalt	10.20	25.00	35.77	102	36.47	105	75-125	2	0-20	
Copper	47.79	25.00	67.01	77	69.49	87	75-125	4	0-20	
Lead	12.53	25.00	36.97	98	40.53	112	75-125	9	0-20	
Molybdenum	ND	25.00	25.09	100	25.54	102	75-125	2	0-20	
Nickel	12.45	25.00	36.59	97	37.25	99	75-125	2	0-20	
Selenium	ND	25.00	20.66	83	21.05	84	75-125	2	0-20	
Silver	ND	12.50	12.98	104	13.30	106	75-125	2	0-20	
Thallium	ND	25.00	19.00	76	19.76	79	75-125	4	0-20	
Vanadium	33.51	25.00	56.79	93	60.09	106	75-125	6	0-20	
Zinc	71.22	25.00	96.48	101	97.42	105	75-125	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate / 0106270030

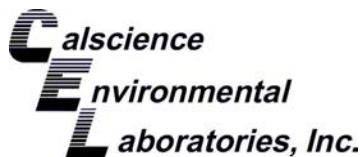
Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1090	Sample	Solid	Mercury 05	06/04/14	06/04/14 17:24	140604S01
#1090	Matrix Spike	Solid	Mercury 05	06/04/14	06/04/14 17:27	140604S01
#1090	Matrix Spike Duplicate	Solid	Mercury 05	06/04/14	06/04/14 17:29	140604S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	1.100	132	1.018	122	71-137	8	0-14	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate / 0106270030

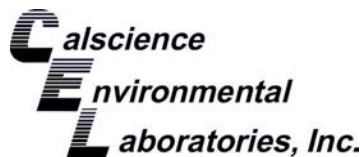
Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
886-V-O-CS-001	Sample	Concrete	GC 31	06/03/14	06/05/14 15:45	140603S19
886-V-O-CS-001	Matrix Spike	Concrete	GC 31	06/03/14	06/05/14 19:54	140603S19
886-V-O-CS-001	Matrix Spike Duplicate	Concrete	GC 31	06/03/14	06/05/14 20:13	140603S19

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	117.0	117	136.9	137	50-135	16	0-25	3
Aroclor-1260	ND	100.0	115.1	115	166.7	167	50-135	37	0-25	3,4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)

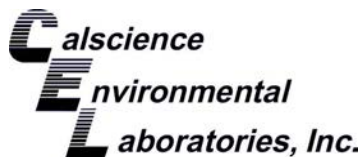
Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-937	LCS	Solid	GC 48	06/03/14	06/04/14 03:01	140603B12

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel	400.0	375.3	94	75-123	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18446	LCS	Solid	ICP 7300	06/03/14	06/04/14 12:21	140603L05
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	25.08	100	80-120	73-127	
Arsenic	25.00	23.89	96	80-120	73-127	
Barium	25.00	25.52	102	80-120	73-127	
Beryllium	25.00	24.20	97	80-120	73-127	
Cadmium	25.00	25.59	102	80-120	73-127	
Chromium	25.00	25.63	103	80-120	73-127	
Cobalt	25.00	27.65	111	80-120	73-127	
Copper	25.00	25.08	100	80-120	73-127	
Lead	25.00	25.53	102	80-120	73-127	
Molybdenum	25.00	25.21	101	80-120	73-127	
Nickel	25.00	26.83	107	80-120	73-127	
Selenium	25.00	21.97	88	80-120	73-127	
Silver	12.50	12.66	101	80-120	73-127	
Thallium	25.00	26.21	105	80-120	73-127	
Vanadium	25.00	24.70	99	80-120	73-127	
Zinc	25.00	25.40	102	80-120	73-127	

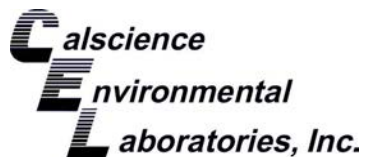
Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 7471A Total
Method: EPA 7471A

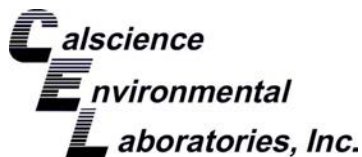
Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-285	LCS	Solid	Mercury 05	06/04/14	06/04/14 17:22	140604L01

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.9563	115	85-121	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

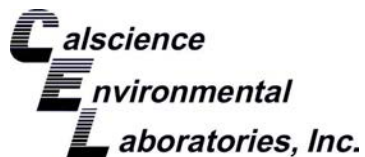
Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-02-003-261	LCS	Solid	GC 31	06/03/14	06/05/14 15:26	140603L19
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	99.34	99	50-135	
Aroclor-1260		100.0	106.4	106	60-130	

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Sample Analysis Summary Report

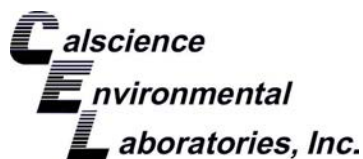
Work Order: 14-06-0199

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8015B (M)	EPA 3550B	847	GC 48	1
EPA 8082	EPA 3540C	842	GC 31	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841



Glossary of Terms and Qualifiers

Work Order: 14-06-0199

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CHAIN-OF-CUSTODY RECORD

[illegible]

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 06/03/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 0.8 °C - 0.3 °C (CF) = 0.5 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 828

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____

☐ No (Not Intact)

☒ Not Present

☐ N/A

Checked by: 828

☐ Sample ☐ _____

☐ No (Not Intact)

☒ Not Present

Checked by: 862

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s

☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: 862

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: _____

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: _____



Supplemental Report 1

Additional requested analyses are reported as a stand-alone report.



CALSCIENCE

WORK ORDER NUMBER: 14-06-0199

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/09/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



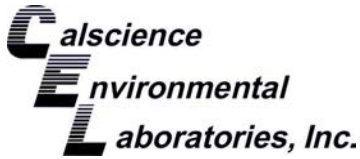
7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501 • www.calscience.com

NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

Client Project Name: Former Pechiney Cast Plate / 0106270030
Work Order Number: 14-06-0199

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	3.2 EPA 6010B/7471A CAC Title 22 Metals (Solid).	7
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Work Order Narrative

Work Order: 14-06-0199

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/03/14. They were assigned to Work Order 14-06-0199.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the CalScience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

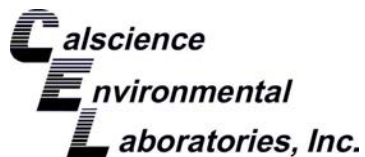
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



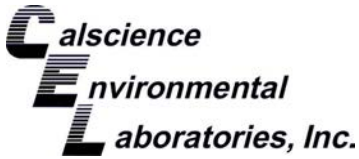
Sample Summary

Client: AMEC Environment & Infrastructure	Work Order: 14-06-0199
121 Innovation Drive, Suite 200	Project Name: Former Pechiney Cast Plate / 0106270030
Irvine, CA 92617-3094	PO Number:
	Date/Time Received: 06/03/14 18:00
	Number of Containers: 13

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1098	14-06-0199-13	06/03/14 09:39	1	Solid


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Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1098	14-06-0199-13-A	06/03/14 09:39	Solid	GC 48	06/06/14	06/07/14 00:42	140606B12B

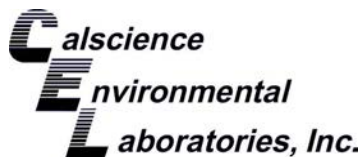
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	5.7	5.0	1.00	
C19-C20	12	5.0	1.00	
C21-C22	13	5.0	1.00	
C23-C24	22	5.0	1.00	
C25-C28	31	5.0	1.00	
C29-C32	53	5.0	1.00	
C33-C36	44	5.0	1.00	
C37-C40	46	5.0	1.00	
C41-C44	28	5.0	1.00	
C6-C44 Total	260	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	89	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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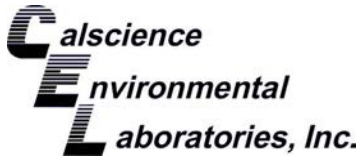
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-490-946	N/A	Solid	GC 48	06/06/14	06/06/14 19:10	140606B12B

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	80	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

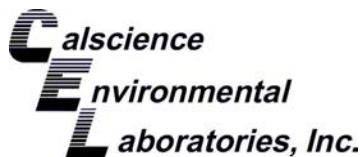
Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1098	14-06-0199-13-A	06/03/14 09:39	Solid	ICP 7300	06/06/14	06/09/14 12:48	140606L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	1.45	0.750	1.00	
Barium	120	0.500	1.00	
Beryllium	0.367	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	18.3	0.250	1.00	
Cobalt	10.0	0.250	1.00	
Copper	51.0	0.500	1.00	
Lead	20.0	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	12.3	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	37.3	0.250	1.00	
Zinc	74.4	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

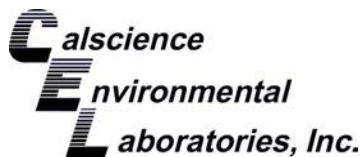
Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18453	N/A	Solid	ICP 7300	06/06/14	06/09/14 12:45	140606L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1098	14-06-0199-13-A	06/03/14 09:39	Solid	Mercury 05	06/09/14	06/09/14 14:05	140609L01

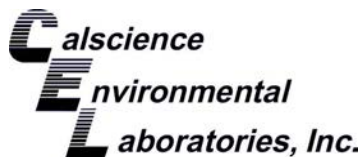
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	0.278	0.0833	1.00	

Method Blank	099-16-272-292	N/A	Solid	Mercury 05	06/09/14	06/09/14 14:01	140609L01
--------------	----------------	-----	-------	------------	----------	----------------	-----------

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0833	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate / 0106270030

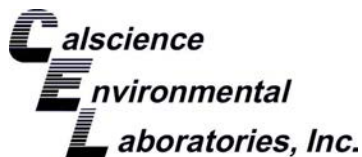
Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-0413-6	Sample	Solid	GC 48	06/06/14	06/06/14 20:13	140606S12
14-06-0413-6	Matrix Spike	Solid	GC 48	06/06/14	06/06/14 19:42	140606S12
14-06-0413-6	Matrix Spike Duplicate	Solid	GC 48	06/06/14	06/06/14 19:57	140606S12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	306.8	77	304.8	76	64-130	1	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B

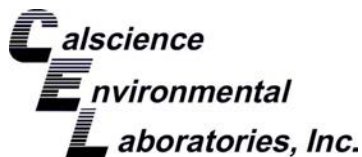
Project: Former Pechiney Cast Plate / 0106270030

Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
#1098	Sample	Solid	ICP 7300	06/06/14	06/09/14 12:48	140606S04				
#1098	Matrix Spike	Solid	ICP 7300	06/06/14	06/09/14 12:49	140606S04				
#1098	Matrix Spike Duplicate	Solid	ICP 7300	06/06/14	06/09/14 12:50	140606S04				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	15.52	62	15.59	62	50-115	0	0-20	
Arsenic	1.451	25.00	28.11	107	29.23	111	75-125	4	0-20	
Barium	120.4	25.00	140.9	4X	141.3	4X	75-125	4X	0-20	Q
Beryllium	0.3673	25.00	27.65	109	27.75	110	75-125	0	0-20	
Cadmium	ND	25.00	26.00	104	26.01	104	75-125	0	0-20	
Chromium	18.28	25.00	44.25	104	43.47	101	75-125	2	0-20	
Cobalt	10.03	25.00	36.04	104	36.15	104	75-125	0	0-20	
Copper	51.03	25.00	72.53	86	72.51	86	75-125	0	0-20	
Lead	20.03	25.00	42.58	90	44.48	98	75-125	4	0-20	
Molybdenum	ND	25.00	25.83	103	26.21	105	75-125	1	0-20	
Nickel	12.28	25.00	37.74	102	37.31	100	75-125	1	0-20	
Selenium	ND	25.00	21.61	86	21.41	86	75-125	1	0-20	
Silver	ND	12.50	13.52	108	13.70	110	75-125	1	0-20	
Thallium	ND	25.00	19.35	77	19.72	79	75-125	2	0-20	
Vanadium	37.34	25.00	62.97	103	61.76	98	75-125	2	0-20	
Zinc	74.38	25.00	101.3	108	94.97	82	75-125	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14

Work Order: 14-06-0199

Preparation: EPA 7471A Total

Method: EPA 7471A

Project: Former Pechiney Cast Plate / 0106270030

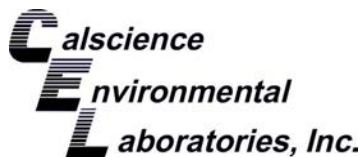
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1098	Sample	Solid	Mercury 05	06/09/14	06/09/14 14:05	140609S01
#1098	Matrix Spike	Solid	Mercury 05	06/09/14	06/09/14 14:07	140609S01
#1098	Matrix Spike Duplicate	Solid	Mercury 05	06/09/14	06/09/14 14:10	140609S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.2777	0.8350	0.9775	84	0.9260	78	71-137	5	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3550B
Method: EPA 8015B (M)

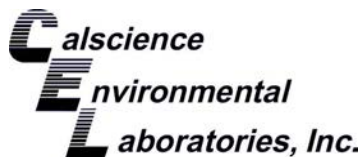
Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-946	LCS	Solid	GC 48	06/06/14	06/06/14 19:26	140606B12B

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel	400.0	341.7	85	75-123	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14
Work Order: 14-06-0199
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18453	LCS	Solid	ICP 7300	06/06/14	06/09/14 12:46	140606L04
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	28.34	113	80-120	73-127	
Arsenic	25.00	25.68	103	80-120	73-127	
Barium	25.00	26.85	107	80-120	73-127	
Beryllium	25.00	26.03	104	80-120	73-127	
Cadmium	25.00	26.94	108	80-120	73-127	
Chromium	25.00	26.94	108	80-120	73-127	
Cobalt	25.00	28.74	115	80-120	73-127	
Copper	25.00	26.19	105	80-120	73-127	
Lead	25.00	26.97	108	80-120	73-127	
Molybdenum	25.00	26.23	105	80-120	73-127	
Nickel	25.00	28.03	112	80-120	73-127	
Selenium	25.00	23.10	92	80-120	73-127	
Silver	12.50	13.23	106	80-120	73-127	
Thallium	25.00	27.59	110	80-120	73-127	
Vanadium	25.00	25.99	104	80-120	73-127	
Zinc	25.00	26.86	107	80-120	73-127	

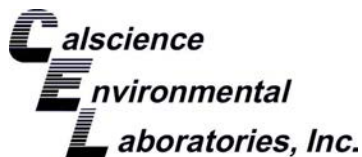
Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/03/14

Work Order: 14-06-0199

Preparation: EPA 7471A Total

Method: EPA 7471A

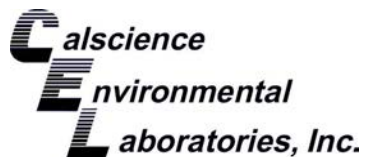
Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-292	LCS	Solid	Mercury 05	06/09/14	06/09/14 14:03	140609L01

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.9054	108	85-121	

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Sample Analysis Summary Report

Work Order: 14-06-0199

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8015B (M)	EPA 3550B	847	GC 48	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-06-0199

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Stephen Nowak

From: Holland, Kim [Kim.Holland@amec.com]
Sent: Friday, June 06, 2014 4:31 PM
To: Stephen Nowak
Subject: RE: Former Pechiney Cast Plate / 0106270030 / CEL 14-06-0199

Please add EPA 8015 and Title 22 metals for sample #1098 on a 24 hour TAT. Thanks,

Kim

From: Stephen Nowak [<mailto:StephenNowak@eurofinsUS.com>]
Sent: Friday, June 06, 2014 3:01 PM
To: Costamagna, Daniel G; Holland, Kim; Conlan, Linda; Huang, Stephen; Lee, Zhur
Subject: Former Pechiney Cast Plate / 0106270030 / CEL 14-06-0199

Report, EDD, and Invoice are attached.

Stephen Nowak
 Project Manager

Eurofins Calscience, Inc.
 7440 Lincoln Way
 GARDEN GROVE, CA 92841
 USA
 Phone: +1 714 895 5494
 Mobile: +1 714 904 5230

Email: StephenNowak@EurofinsUS.com
 Website: www.calscience.com

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Click [here](#) to report this email as spam.

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 06/03/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 0.8 °C - 0.3 °C (CF) = 0.5 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 828

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____ ☐ No (Not Intact) ☒ Not Present ☐ N/A Checked by: 828

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present Checked by: 862

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC..... ☒ ☐ ☐

Sample container label(s) consistent with COC..... ☒ ☐ ☐

Sample container(s) intact and good condition..... ☒ ☐ ☐

Proper containers and sufficient volume for analyses requested..... ☒ ☐ ☐

Analyses received within holding time..... ☒ ☐ ☐

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ ☐ ☒

Proper preservation noted on COC or sample container..... ☐ ☐ ☒

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... ☐ ☐ ☒

Tedlar bag(s) free of condensation..... ☐ ☐ ☒

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s

☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: 862

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: _____

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: _____



CALSCIENCE

WORK ORDER NUMBER: 14-06-0297

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/09/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



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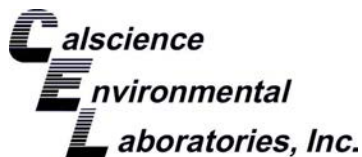
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NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

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Work Order Narrative

Work Order: 14-06-0297

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/04/14. They were assigned to Work Order 14-06-0297.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

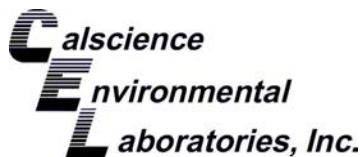
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

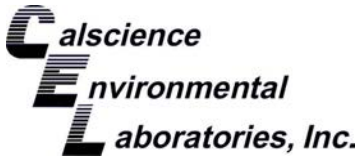
Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0297
Project Name: Former Pechiney Cast Plate Facility / 0106270030
PO Number:
Date/Time Received: 06/04/14 16:55
Number of Containers: 17

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1099	14-06-0297-1	06/04/14 10:08	1	Solid
#1100	14-06-0297-2	06/04/14 10:09	1	Solid
#1101	14-06-0297-3	06/04/14 10:10	1	Solid
#1102	14-06-0297-4	06/04/14 10:11	1	Solid
#1103	14-06-0297-5	06/04/14 10:12	1	Solid
#1104	14-06-0297-6	06/04/14 10:13	1	Solid
#1105	14-06-0297-7	06/04/14 10:14	1	Solid
#1106	14-06-0297-8	06/04/14 10:15	1	Solid
#1107	14-06-0297-9	06/04/14 10:16	1	Solid
#1108	14-06-0297-10	06/04/14 10:17	1	Solid
#1109	14-06-0297-11	06/04/14 10:18	1	Solid
#1110	14-06-0297-12	06/04/14 10:16	1	Solid
#1111	14-06-0297-13	06/04/14 10:12	1	Solid
#1112	14-06-0297-14	06/04/14 10:11	1	Solid
#1113	14-06-0297-15	06/04/14 10:09	1	Solid
#1114	14-06-0297-16	06/04/14 10:10	1	Solid
#1115	14-06-0297-17	06/04/14 10:24	1	Solid


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Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0297
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/04/14

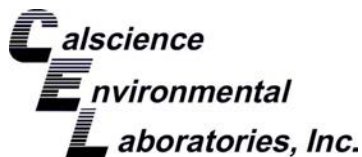
Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1099 (14-06-0297-1)						
Arsenic	2.76		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	150		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.388		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	29.8		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	59.7		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	17.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	36.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	81.9		1.00	mg/kg	EPA 6010B	EPA 3050B
C19-C20	16		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	24		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	37		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	66		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	97		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	56		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	46		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	18		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	360		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
#1100 (14-06-0297-2)						
Arsenic	6.37		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	146		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.382		0.253	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.9		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	13.2		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	63.7		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	37.3		0.505	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.311		0.253	mg/kg	EPA 6010B	EPA 3050B
Nickel	44.6		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.1		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	123		1.01	mg/kg	EPA 6010B	EPA 3050B
C23-C24	5.4		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	11		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	13		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	7.8		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	7.3		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	53		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0297
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/04/14

Attn: Linda Conlan

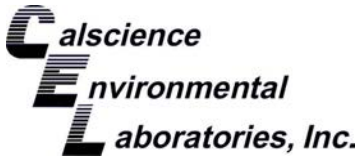
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1101 (14-06-0297-3)						
Arsenic	1.14		0.746	mg/kg	EPA 6010B	EPA 3050B
Barium	166		0.498	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.449		0.249	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.5		0.249	mg/kg	EPA 6010B	EPA 3050B
Cobalt	13.8		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	21.4		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	2.57		0.498	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.278		0.249	mg/kg	EPA 6010B	EPA 3050B
Nickel	15.9		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	41.5		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	65.8		0.995	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0993		0.0847	mg/kg	EPA 7471A	EPA 7471A Total
C19-C20	9.4		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	7.9		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	8.8		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	10		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	7.4		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	54		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
#1102 (14-06-0297-4)						
Arsenic	1.50		0.725	mg/kg	EPA 6010B	EPA 3050B
Barium	157		0.483	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.439		0.242	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.4		0.242	mg/kg	EPA 6010B	EPA 3050B
Cobalt	13.3		0.242	mg/kg	EPA 6010B	EPA 3050B
Copper	19.5		0.483	mg/kg	EPA 6010B	EPA 3050B
Lead	1.72		0.483	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.7		0.242	mg/kg	EPA 6010B	EPA 3050B
Vanadium	40.1		0.242	mg/kg	EPA 6010B	EPA 3050B
Zinc	63.2		0.966	mg/kg	EPA 6010B	EPA 3050B

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Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
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Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/04/14

Attn: Linda Conlan

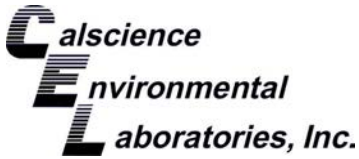
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1103 (14-06-0297-5)						
Arsenic	3.10		0.728	mg/kg	EPA 6010B	EPA 3050B
Barium	117		0.485	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.263		0.243	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.534		0.485	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.5		0.243	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.77		0.243	mg/kg	EPA 6010B	EPA 3050B
Copper	75.2		0.485	mg/kg	EPA 6010B	EPA 3050B
Lead	94.6		0.485	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.371		0.243	mg/kg	EPA 6010B	EPA 3050B
Nickel	42.8		0.243	mg/kg	EPA 6010B	EPA 3050B
Vanadium	27.9		0.243	mg/kg	EPA 6010B	EPA 3050B
Zinc	271		0.971	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.310		0.0806	mg/kg	EPA 7471A	EPA 7471A Total
C23-C24	26		25	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	49		25	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	87		25	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	72		25	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	59		25	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	28		25	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	360		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1248	560		51	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	100		51	ug/kg	EPA 8082	EPA 3540C

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Detections Summary

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121 Innovation Drive, Suite 200
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0106270030
Received: 06/04/14

Attn: Linda Conlan

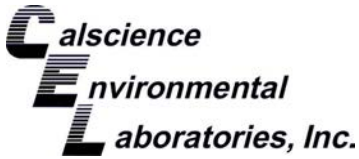
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1104 (14-06-0297-6)						
Arsenic	0.981		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	107		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.317		0.246	mg/kg	EPA 6010B	EPA 3050B
Cadmium	2.00		0.493	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.2		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.2		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	55.0		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	30.8		0.493	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.26		0.246	mg/kg	EPA 6010B	EPA 3050B
Nickel	15.1		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	30.1		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	334		0.985	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.185		0.0820	mg/kg	EPA 7471A	EPA 7471A Total
C17-C18	5.6		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C19-C20	13		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	28		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	36		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	51		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	50		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	25		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	18		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	230		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

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Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0297
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/04/14

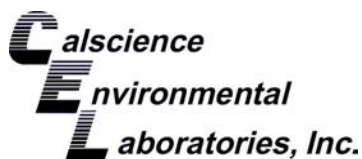
Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1105 (14-06-0297-7)						
Arsenic	1.53		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	135		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.391		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	19.1		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	4.64		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	69.1		1.00	mg/kg	EPA 6010B	EPA 3050B
C15-C16	10		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C17-C18	26		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C19-C20	39		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	42		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	29		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	44		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	35		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	14		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	10		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	260		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
#1106 (14-06-0297-8)						
Arsenic	0.817		0.732	mg/kg	EPA 6010B	EPA 3050B
Barium	125		0.488	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.392		0.244	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.6		0.244	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.3		0.244	mg/kg	EPA 6010B	EPA 3050B
Copper	16.1		0.488	mg/kg	EPA 6010B	EPA 3050B
Lead	1.60		0.488	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.1		0.244	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.5		0.244	mg/kg	EPA 6010B	EPA 3050B
Zinc	52.8		0.976	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown



Detections Summary

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121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

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0106270030
Received: 06/04/14

Attn: Linda Conlan

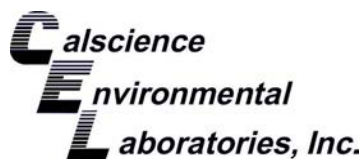
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1107 (14-06-0297-9)						
Arsenic	0.925		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	132		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.388		0.245	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.4		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.7		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	16.5		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	1.68		0.490	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.7		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	37.5		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	54.3		0.980	mg/kg	EPA 6010B	EPA 3050B
#1108 (14-06-0297-10)						
Arsenic	1.21		0.732	mg/kg	EPA 6010B	EPA 3050B
Barium	155		0.488	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.371		0.244	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.6		0.244	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.5		0.244	mg/kg	EPA 6010B	EPA 3050B
Copper	23.0		0.488	mg/kg	EPA 6010B	EPA 3050B
Lead	10.6		0.488	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.7		0.244	mg/kg	EPA 6010B	EPA 3050B
Vanadium	34.8		0.244	mg/kg	EPA 6010B	EPA 3050B
Zinc	110		0.976	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.342		0.0794	mg/kg	EPA 7471A	EPA 7471A Total

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* MDL is shown



Detections Summary

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121 Innovation Drive, Suite 200
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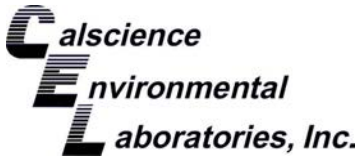
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1109 (14-06-0297-11)						
Arsenic	24.6		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	142		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.405		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	22.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.8		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	108		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	97.2		0.495	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.437		0.248	mg/kg	EPA 6010B	EPA 3050B
Nickel	18.3		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.9		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	256		0.990	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.396		0.0820	mg/kg	EPA 7471A	EPA 7471A Total
C19-C20	7.1		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	9.7		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	17		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	32		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	66		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	48		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	40		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	21		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	240		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1260	730		51	ug/kg	EPA 8082	EPA 3540C
#1110 (14-06-0297-12)						
Arsenic	2.16		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	137		0.508	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.394		0.254	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.0		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.0		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	24.1		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	8.11		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.5		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	36.3		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	69.6		1.02	mg/kg	EPA 6010B	EPA 3050B

Return to Contents

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0297
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/04/14

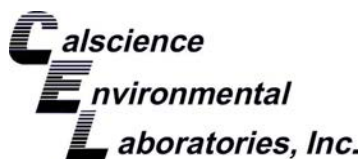
Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1111 (14-06-0297-13)						
Arsenic	1.54		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	138		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.387		0.245	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.8		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.3		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	21.4		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	8.37		0.490	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.0		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	36.6		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	67.3		0.980	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0803		0.0781	mg/kg	EPA 7471A	EPA 7471A Total
#1112 (14-06-0297-14)						
Arsenic	1.08		0.728	mg/kg	EPA 6010B	EPA 3050B
Barium	120		0.485	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.371		0.243	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.6		0.243	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.7		0.243	mg/kg	EPA 6010B	EPA 3050B
Copper	16.3		0.485	mg/kg	EPA 6010B	EPA 3050B
Lead	2.65		0.485	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.9		0.243	mg/kg	EPA 6010B	EPA 3050B
Vanadium	34.1		0.243	mg/kg	EPA 6010B	EPA 3050B
Zinc	54.3		0.971	mg/kg	EPA 6010B	EPA 3050B
#1113 (14-06-0297-15)						
Arsenic	1.32		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	165		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.423		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.2		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.4		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	63.7		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	1.76		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	17.5		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	39.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	62.5		0.990	mg/kg	EPA 6010B	EPA 3050B
C25-C28	6.1		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	5.7		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	23		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

* MDL is shown



Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0297
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/04/14

Attn: Linda Conlan

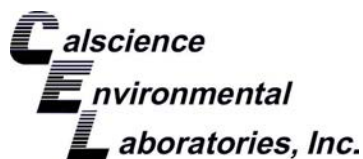
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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1114 (14-06-0297-16)						
Arsenic	2.33		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	178		0.508	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.384		0.254	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.9		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.9		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	108		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	98.5		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	35.5		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	36.3		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	113		1.02	mg/kg	EPA 6010B	EPA 3050B
C19-C20	51		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	42		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	41		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	66		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	93		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	61		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	44		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	26		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	420		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
#1115 (14-06-0297-17)						
Arsenic	1.21		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	147		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.405		0.246	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.3		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.6		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	18.9		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	2.40		0.493	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.0		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.5		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	61.7		0.985	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1099	14-06-0297-1-A	06/04/14 10:08	Solid	GC 48	06/05/14	06/05/14 16:28	140605B05

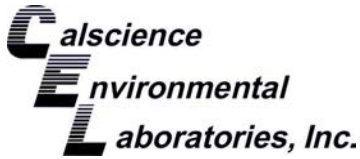
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	16	5.0	1.00	
C21-C22	24	5.0	1.00	
C23-C24	37	5.0	1.00	
C25-C28	66	5.0	1.00	
C29-C32	97	5.0	1.00	
C33-C36	56	5.0	1.00	
C37-C40	46	5.0	1.00	
C41-C44	18	5.0	1.00	
C6-C44 Total	360	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	85	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1100	14-06-0297-2-A	06/04/14 10:09	Solid	GC 48	06/05/14	06/05/14 16:44	140605B05

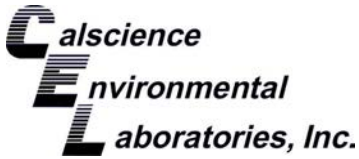
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	5.4	4.9	1.00	
C25-C28	11	4.9	1.00	
C29-C32	13	4.9	1.00	
C33-C36	7.8	4.9	1.00	
C37-C40	7.3	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	53	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	83	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1101	14-06-0297-3-A	06/04/14 10:10	Solid	GC 48	06/05/14	06/05/14 16:59	140605B05

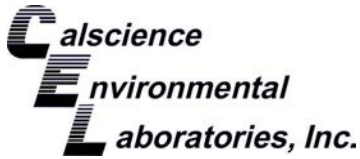
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	9.4	5.0	1.00	
C21-C22	7.9	5.0	1.00	
C23-C24	8.8	5.0	1.00	
C25-C28	10	5.0	1.00	
C29-C32	7.4	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	54	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	84	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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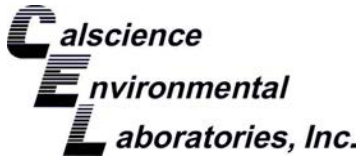
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#1102	14-06-0297-4-A	06/04/14 10:11	Solid	GC 48	06/05/14	06/05/14 17:15	140605B05

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	87	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1103	14-06-0297-5-A	06/04/14 10:12	Solid	GC 48	06/05/14	06/05/14 17:31	140605B05

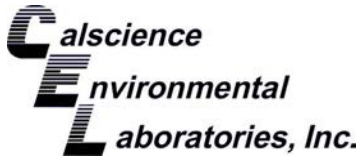
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	25	5.00	
C7	ND	25	5.00	
C8	ND	25	5.00	
C9-C10	ND	25	5.00	
C11-C12	ND	25	5.00	
C13-C14	ND	25	5.00	
C15-C16	ND	25	5.00	
C17-C18	ND	25	5.00	
C19-C20	ND	25	5.00	
C21-C22	ND	25	5.00	
C23-C24	26	25	5.00	
C25-C28	49	25	5.00	
C29-C32	87	25	5.00	
C33-C36	72	25	5.00	
C37-C40	59	25	5.00	
C41-C44	28	25	5.00	
C6-C44 Total	360	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	77	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1104	14-06-0297-6-A	06/04/14 10:13	Solid	GC 48	06/05/14	06/05/14 17:47	140605B05

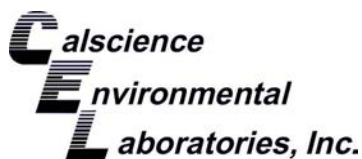
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	5.6	5.0	1.00	
C19-C20	13	5.0	1.00	
C21-C22	28	5.0	1.00	
C23-C24	36	5.0	1.00	
C25-C28	51	5.0	1.00	
C29-C32	50	5.0	1.00	
C33-C36	25	5.0	1.00	
C37-C40	18	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	230	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	67	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1105	14-06-0297-7-A	06/04/14 10:14	Solid	GC 48	06/05/14	06/05/14 18:03	140605B05

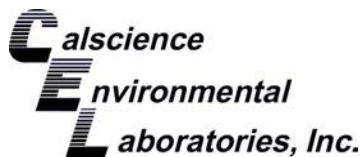
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	10	4.9	1.00	
C17-C18	26	4.9	1.00	
C19-C20	39	4.9	1.00	
C21-C22	42	4.9	1.00	
C23-C24	29	4.9	1.00	
C25-C28	44	4.9	1.00	
C29-C32	35	4.9	1.00	
C33-C36	14	4.9	1.00	
C37-C40	10	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	260	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	65	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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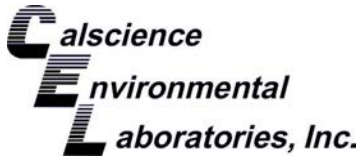
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1106	14-06-0297-8-A	06/04/14 10:15	Solid	GC 48	06/05/14	06/05/14 18:19	140605B05

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	76	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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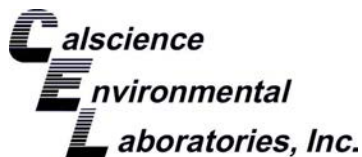
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1107	14-06-0297-9-A	06/04/14 10:16	Solid	GC 48	06/05/14	06/05/14 18:34	140605B05

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	71	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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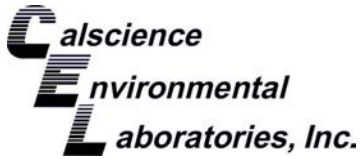
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1108	14-06-0297-10-A	06/04/14 10:17	Solid	GC 48	06/05/14	06/05/14 18:50	140605B05

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	80	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1109	14-06-0297-11-A	06/04/14 10:18	Solid	GC 48	06/05/14	06/05/14 19:22	140605B05

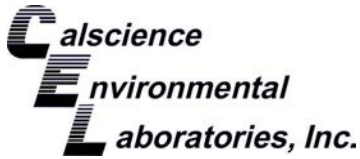
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	7.1	4.9	1.00	
C21-C22	9.7	4.9	1.00	
C23-C24	17	4.9	1.00	
C25-C28	32	4.9	1.00	
C29-C32	66	4.9	1.00	
C33-C36	48	4.9	1.00	
C37-C40	40	4.9	1.00	
C41-C44	21	4.9	1.00	
C6-C44 Total	240	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	81	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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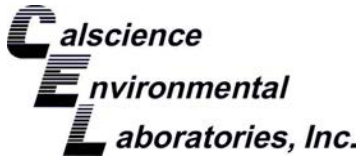
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1110	14-06-0297-12-A	06/04/14 10:16	Solid	GC 48	06/05/14	06/05/14 19:38	140605B05

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.1	1.00	
C7	ND	5.1	1.00	
C8	ND	5.1	1.00	
C9-C10	ND	5.1	1.00	
C11-C12	ND	5.1	1.00	
C13-C14	ND	5.1	1.00	
C15-C16	ND	5.1	1.00	
C17-C18	ND	5.1	1.00	
C19-C20	ND	5.1	1.00	
C21-C22	ND	5.1	1.00	
C23-C24	ND	5.1	1.00	
C25-C28	ND	5.1	1.00	
C29-C32	ND	5.1	1.00	
C33-C36	ND	5.1	1.00	
C37-C40	ND	5.1	1.00	
C41-C44	ND	5.1	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	79	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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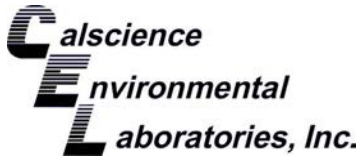
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1111	14-06-0297-13-A	06/04/14 10:12	Solid	GC 48	06/05/14	06/05/14 19:54	140605B05

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	83	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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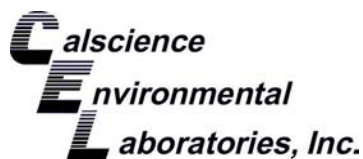
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1112	14-06-0297-14-A	06/04/14 10:11	Solid	GC 48	06/05/14	06/05/14 20:10	140605B05

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	80	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1113	14-06-0297-15-A	06/04/14 10:09	Solid	GC 48	06/05/14	06/05/14 20:25	140605B05

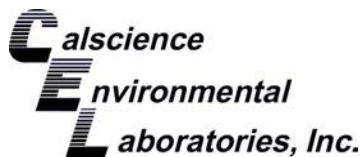
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	6.1	5.0	1.00	
C29-C32	5.7	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	23	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	80	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1114	14-06-0297-16-A	06/04/14 10:10	Solid	GC 48	06/05/14	06/05/14 20:41	140605B05

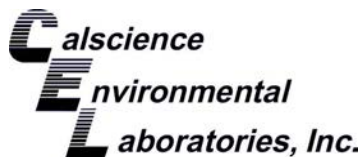
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	51	4.9	1.00	
C21-C22	42	4.9	1.00	
C23-C24	41	4.9	1.00	
C25-C28	66	4.9	1.00	
C29-C32	93	4.9	1.00	
C33-C36	61	4.9	1.00	
C37-C40	44	4.9	1.00	
C41-C44	26	4.9	1.00	
C6-C44 Total	420	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	76	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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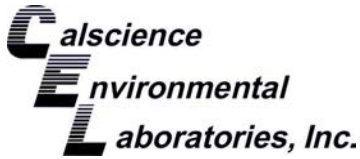
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1115	14-06-0297-17-A	06/04/14 10:24	Solid	GC 48	06/05/14	06/05/14 20:57	140605B05

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	79	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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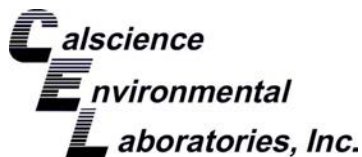
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Method Blank	099-15-490-943	N/A	Solid	GC 48	06/05/14	06/05/14 15:24	140605B05

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	80	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

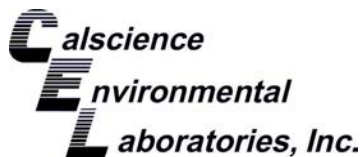
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1099	14-06-0297-1-A	06/04/14 10:08	Solid	ICP 7300	06/05/14	06/05/14 19:14	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	2.76	0.750	1.00	
Barium	150	0.500	1.00	
Beryllium	0.388	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	18.5	0.250	1.00	
Cobalt	11.9	0.250	1.00	
Copper	29.8	0.500	1.00	
Lead	59.7	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	17.4	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	36.6	0.250	1.00	
Zinc	81.9	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

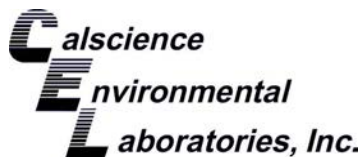
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1100	14-06-0297-2-A	06/04/14 10:09	Solid	ICP 7300	06/05/14	06/05/14 19:15	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	6.37	0.758	1.01	
Barium	146	0.505	1.01	
Beryllium	0.382	0.253	1.01	
Cadmium	ND	0.505	1.01	
Chromium	19.9	0.253	1.01	
Cobalt	13.2	0.253	1.01	
Copper	63.7	0.505	1.01	
Lead	37.3	0.505	1.01	
Molybdenum	0.311	0.253	1.01	
Nickel	44.6	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	35.1	0.253	1.01	
Zinc	123	1.01	1.01	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

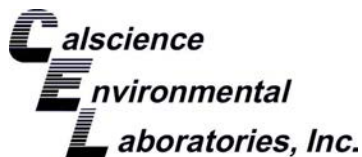
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1101	14-06-0297-3-A	06/04/14 10:10	Solid	ICP 7300	06/05/14	06/05/14 19:16	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.746	0.995	
Arsenic	1.14	0.746	0.995	
Barium	166	0.498	0.995	
Beryllium	0.449	0.249	0.995	
Cadmium	ND	0.498	0.995	
Chromium	20.5	0.249	0.995	
Cobalt	13.8	0.249	0.995	
Copper	21.4	0.498	0.995	
Lead	2.57	0.498	0.995	
Molybdenum	0.278	0.249	0.995	
Nickel	15.9	0.249	0.995	
Selenium	ND	0.746	0.995	
Silver	ND	0.249	0.995	
Thallium	ND	0.746	0.995	
Vanadium	41.5	0.249	0.995	
Zinc	65.8	0.995	0.995	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

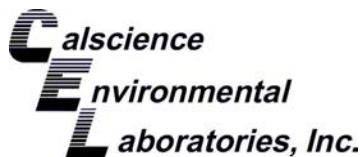
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1102	14-06-0297-4-A	06/04/14 10:11	Solid	ICP 7300	06/05/14	06/05/14 19:22	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.725	0.966	
Arsenic	1.50	0.725	0.966	
Barium	157	0.483	0.966	
Beryllium	0.439	0.242	0.966	
Cadmium	ND	0.483	0.966	
Chromium	19.4	0.242	0.966	
Cobalt	13.3	0.242	0.966	
Copper	19.5	0.483	0.966	
Lead	1.72	0.483	0.966	
Molybdenum	ND	0.242	0.966	
Nickel	14.7	0.242	0.966	
Selenium	ND	0.725	0.966	
Silver	ND	0.242	0.966	
Thallium	ND	0.725	0.966	
Vanadium	40.1	0.242	0.966	
Zinc	63.2	0.966	0.966	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

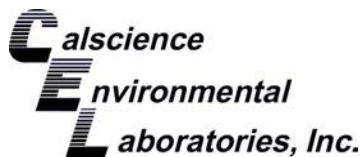
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1103	14-06-0297-5-A	06/04/14 10:12	Solid	ICP 7300	06/05/14	06/05/14 19:23	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.728	0.971	
Arsenic	3.10	0.728	0.971	
Barium	117	0.485	0.971	
Beryllium	0.263	0.243	0.971	
Cadmium	0.534	0.485	0.971	
Chromium	20.5	0.243	0.971	
Cobalt	8.77	0.243	0.971	
Copper	75.2	0.485	0.971	
Lead	94.6	0.485	0.971	
Molybdenum	0.371	0.243	0.971	
Nickel	42.8	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	ND	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	27.9	0.243	0.971	
Zinc	271	0.971	0.971	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

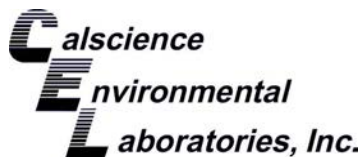
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1104	14-06-0297-6-A	06/04/14 10:13	Solid	ICP 7300	06/05/14	06/05/14 19:25	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	0.981	0.739	0.985	
Barium	107	0.493	0.985	
Beryllium	0.317	0.246	0.985	
Cadmium	2.00	0.493	0.985	
Chromium	20.2	0.246	0.985	
Cobalt	11.2	0.246	0.985	
Copper	55.0	0.493	0.985	
Lead	30.8	0.493	0.985	
Molybdenum	1.26	0.246	0.985	
Nickel	15.1	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	30.1	0.246	0.985	
Zinc	334	0.985	0.985	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

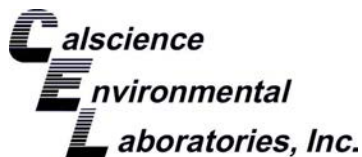
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1105	14-06-0297-7-A	06/04/14 10:14	Solid	ICP 7300	06/05/14	06/05/14 19:26	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	1.53	0.750	1.00	
Barium	135	0.500	1.00	
Beryllium	0.391	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	17.6	0.250	1.00	
Cobalt	11.7	0.250	1.00	
Copper	19.1	0.500	1.00	
Lead	4.64	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	13.7	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	35.6	0.250	1.00	
Zinc	69.1	1.00	1.00	

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AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
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Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

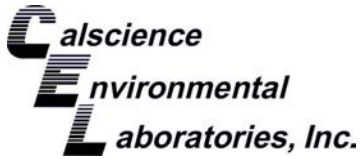
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1106	14-06-0297-8-A	06/04/14 10:15	Solid	ICP 7300	06/05/14	06/05/14 19:27	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.732	0.976	
Arsenic	0.817	0.732	0.976	
Barium	125	0.488	0.976	
Beryllium	0.392	0.244	0.976	
Cadmium	ND	0.488	0.976	
Chromium	16.6	0.244	0.976	
Cobalt	11.3	0.244	0.976	
Copper	16.1	0.488	0.976	
Lead	1.60	0.488	0.976	
Molybdenum	ND	0.244	0.976	
Nickel	12.1	0.244	0.976	
Selenium	ND	0.732	0.976	
Silver	ND	0.244	0.976	
Thallium	ND	0.732	0.976	
Vanadium	35.5	0.244	0.976	
Zinc	52.8	0.976	0.976	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
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Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

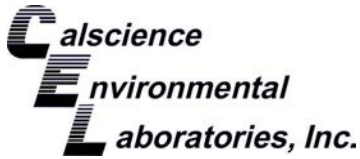
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1107	14-06-0297-9-A	06/04/14 10:16	Solid	ICP 7300	06/05/14	06/05/14 19:28	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	0.925	0.735	0.980	
Barium	132	0.490	0.980	
Beryllium	0.388	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	17.4	0.245	0.980	
Cobalt	11.7	0.245	0.980	
Copper	16.5	0.490	0.980	
Lead	1.68	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	12.7	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	37.5	0.245	0.980	
Zinc	54.3	0.980	0.980	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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121 Innovation Drive, Suite 200
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Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

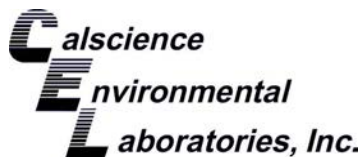
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1108	14-06-0297-10-A	06/04/14 10:17	Solid	ICP 7300	06/05/14	06/05/14 19:29	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.732	0.976	
Arsenic	1.21	0.732	0.976	
Barium	155	0.488	0.976	
Beryllium	0.371	0.244	0.976	
Cadmium	ND	0.488	0.976	
Chromium	16.6	0.244	0.976	
Cobalt	11.5	0.244	0.976	
Copper	23.0	0.488	0.976	
Lead	10.6	0.488	0.976	
Molybdenum	ND	0.244	0.976	
Nickel	13.7	0.244	0.976	
Selenium	ND	0.732	0.976	
Silver	ND	0.244	0.976	
Thallium	ND	0.732	0.976	
Vanadium	34.8	0.244	0.976	
Zinc	110	0.976	0.976	

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AMEC Environment & Infrastructure
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Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

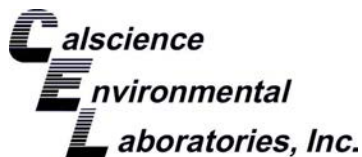
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1109	14-06-0297-11-A	06/04/14 10:18	Solid	ICP 7300	06/05/14	06/05/14 19:30	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	24.6	0.743	0.990	
Barium	142	0.495	0.990	
Beryllium	0.405	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	22.1	0.248	0.990	
Cobalt	10.8	0.248	0.990	
Copper	108	0.495	0.990	
Lead	97.2	0.495	0.990	
Molybdenum	0.437	0.248	0.990	
Nickel	18.3	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	32.9	0.248	0.990	
Zinc	256	0.990	0.990	

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AMEC Environment & Infrastructure
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Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

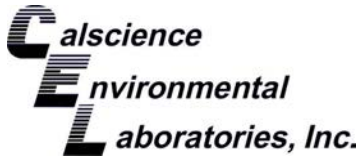
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1110	14-06-0297-12-A	06/04/14 10:16	Solid	ICP 7300	06/05/14	06/05/14 19:31	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	2.16	0.761	1.02	
Barium	137	0.508	1.02	
Beryllium	0.394	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	18.0	0.254	1.02	
Cobalt	12.0	0.254	1.02	
Copper	24.1	0.508	1.02	
Lead	8.11	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	13.5	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	36.3	0.254	1.02	
Zinc	69.6	1.02	1.02	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

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Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

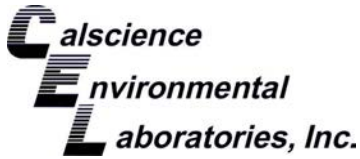
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1111	14-06-0297-13-A	06/04/14 10:12	Solid	ICP 7300	06/05/14	06/05/14 19:32	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	1.54	0.735	0.980	
Barium	138	0.490	0.980	
Beryllium	0.387	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	17.8	0.245	0.980	
Cobalt	12.3	0.245	0.980	
Copper	21.4	0.490	0.980	
Lead	8.37	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	14.0	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	36.6	0.245	0.980	
Zinc	67.3	0.980	0.980	

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AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
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Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

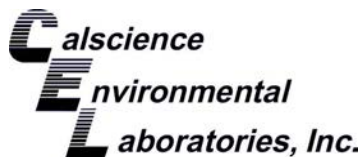
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1112	14-06-0297-14-A	06/04/14 10:11	Solid	ICP 7300	06/05/14	06/05/14 19:39	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.728	0.971	
Arsenic	1.08	0.728	0.971	
Barium	120	0.485	0.971	
Beryllium	0.371	0.243	0.971	
Cadmium	ND	0.485	0.971	
Chromium	15.6	0.243	0.971	
Cobalt	10.7	0.243	0.971	
Copper	16.3	0.485	0.971	
Lead	2.65	0.485	0.971	
Molybdenum	ND	0.243	0.971	
Nickel	11.9	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	ND	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	34.1	0.243	0.971	
Zinc	54.3	0.971	0.971	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

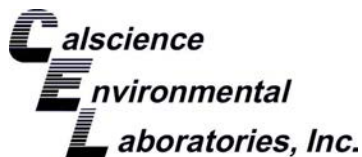
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1113	14-06-0297-15-A	06/04/14 10:09	Solid	ICP 7300	06/05/14	06/05/14 19:40	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	1.32	0.743	0.990	
Barium	165	0.495	0.990	
Beryllium	0.423	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	19.2	0.248	0.990	
Cobalt	12.4	0.248	0.990	
Copper	63.7	0.495	0.990	
Lead	1.76	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	17.5	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	39.1	0.248	0.990	
Zinc	62.5	0.990	0.990	

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AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
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Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

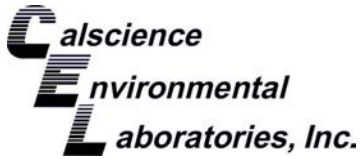
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1114	14-06-0297-16-A	06/04/14 10:10	Solid	ICP 7300	06/05/14	06/05/14 19:41	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	2.33	0.761	1.02	
Barium	178	0.508	1.02	
Beryllium	0.384	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	20.9	0.254	1.02	
Cobalt	12.9	0.254	1.02	
Copper	108	0.508	1.02	
Lead	98.5	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	35.5	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	36.3	0.254	1.02	
Zinc	113	1.02	1.02	

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Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

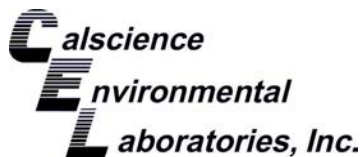
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1115	14-06-0297-17-A	06/04/14 10:24	Solid	ICP 7300	06/05/14	06/05/14 19:42	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	1.21	0.739	0.985	
Barium	147	0.493	0.985	
Beryllium	0.405	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	18.3	0.246	0.985	
Cobalt	12.6	0.246	0.985	
Copper	18.9	0.493	0.985	
Lead	2.40	0.493	0.985	
Molybdenum	ND	0.246	0.985	
Nickel	14.0	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	38.5	0.246	0.985	
Zinc	61.7	0.985	0.985	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

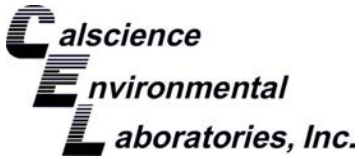
Page 18 of 18

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18449	N/A	Solid	ICP 7300	06/05/14	06/05/14 18:57	140605L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
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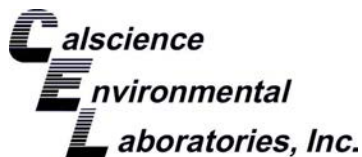
Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1099	14-06-0297-1-A	06/04/14 10:08	Solid	Mercury 05	06/05/14	06/05/14 19:45	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
#1100	14-06-0297-2-A	06/04/14 10:09	Solid	Mercury 05	06/05/14	06/05/14 19:52	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0847	1.00			
#1101	14-06-0297-3-A	06/04/14 10:10	Solid	Mercury 05	06/05/14	06/05/14 19:54	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.0993	0.0847	1.00			
#1102	14-06-0297-4-A	06/04/14 10:11	Solid	Mercury 05	06/05/14	06/05/14 19:56	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0694	1.00			
#1103	14-06-0297-5-A	06/04/14 10:12	Solid	Mercury 05	06/05/14	06/05/14 19:58	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.310	0.0806	1.00			
#1104	14-06-0297-6-A	06/04/14 10:13	Solid	Mercury 05	06/05/14	06/05/14 20:01	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.185	0.0820	1.00			
#1105	14-06-0297-7-A	06/04/14 10:14	Solid	Mercury 05	06/05/14	06/05/14 20:07	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0781	1.00			
#1106	14-06-0297-8-A	06/04/14 10:15	Solid	Mercury 05	06/05/14	06/05/14 20:10	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

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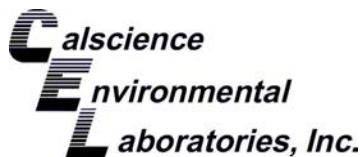
Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1107	14-06-0297-9-A	06/04/14 10:16	Solid	Mercury 05	06/05/14	06/05/14 20:12	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0847	1.00			
#1108	14-06-0297-10-A	06/04/14 10:17	Solid	Mercury 05	06/05/14	06/05/14 20:14	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.342	0.0794	1.00			
#1109	14-06-0297-11-A	06/04/14 10:18	Solid	Mercury 05	06/05/14	06/05/14 20:16	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.396	0.0820	1.00			
#1110	14-06-0297-12-A	06/04/14 10:16	Solid	Mercury 05	06/05/14	06/05/14 20:18	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0862	1.00			
#1111	14-06-0297-13-A	06/04/14 10:12	Solid	Mercury 05	06/05/14	06/05/14 20:21	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.0803	0.0781	1.00			
#1112	14-06-0297-14-A	06/04/14 10:11	Solid	Mercury 05	06/05/14	06/05/14 20:23	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0758	1.00			
#1113	14-06-0297-15-A	06/04/14 10:09	Solid	Mercury 05	06/05/14	06/05/14 20:25	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0781	1.00			
#1114	14-06-0297-16-A	06/04/14 10:10	Solid	Mercury 05	06/05/14	06/05/14 20:28	140605L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0781	1.00			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

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Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1115	14-06-0297-17-A	06/04/14 10:24	Solid	Mercury 05	06/05/14	06/05/14 20:34	140605L01

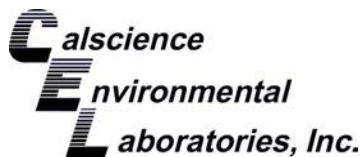
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0820	1.00	

Method Blank	099-16-272-288	N/A	Solid	Mercury 05	06/05/14	06/05/14 19:41	140605L01
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0833	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1099	14-06-0297-1-A	06/04/14 10:08	Solid	GC 58	06/04/14	06/06/14 23:34	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

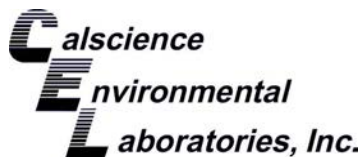
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	93	60-125	
2,4,5,6-Tetrachloro-m-Xylene	103	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1100	14-06-0297-2-A	06/04/14 10:09	Solid	GC 58	06/04/14	06/06/14 23:52	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	51	1.00	
Aroclor-1221	ND	51	1.00	
Aroclor-1232	ND	51	1.00	
Aroclor-1242	ND	51	1.00	
Aroclor-1248	ND	51	1.00	
Aroclor-1254	ND	51	1.00	
Aroclor-1260	ND	51	1.00	
Aroclor-1262	ND	51	1.00	
Aroclor-1268	ND	51	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	96	60-125	
2,4,5,6-Tetrachloro-m-Xylene	103	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1101	14-06-0297-3-A	06/04/14 10:10	Solid	GC 58	06/04/14	06/07/14 00:10	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

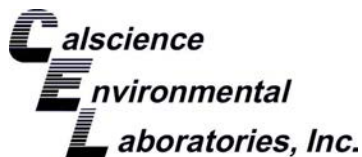
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	93	60-125	
2,4,5,6-Tetrachloro-m-Xylene	100	50-130	

#1102	14-06-0297-4-A	06/04/14 10:11	Solid	GC 58	06/04/14	06/07/14 10:08	140604L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	74	60-125	
2,4,5,6-Tetrachloro-m-Xylene	103	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
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Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1103	14-06-0297-5-A	06/04/14 10:12	Solid	GC 58	06/04/14	06/07/14 10:27	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	51	1.00	
Aroclor-1221	ND	51	1.00	
Aroclor-1232	ND	51	1.00	
Aroclor-1242	ND	51	1.00	
Aroclor-1248	560	51	1.00	
Aroclor-1254	ND	51	1.00	
Aroclor-1260	100	51	1.00	
Aroclor-1262	ND	51	1.00	
Aroclor-1268	ND	51	1.00	

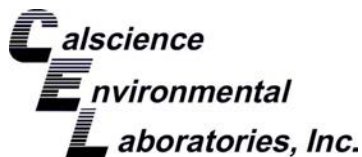
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	60-125	
2,4,5,6-Tetrachloro-m-Xylene	101	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1104	14-06-0297-6-A	06/04/14 10:13	Solid	GC 58	06/04/14	06/07/14 10:45	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	88	60-125	
2,4,5,6-Tetrachloro-m-Xylene	96	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1105	14-06-0297-7-A	06/04/14 10:14	Solid	GC 58	06/04/14	06/07/14 11:03	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

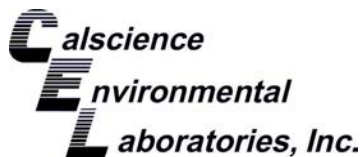
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	60-125	
2,4,5,6-Tetrachloro-m-Xylene	92	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1106	14-06-0297-8-A	06/04/14 10:15	Solid	GC 58	06/04/14	06/07/14 11:21	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	60-125	
2,4,5,6-Tetrachloro-m-Xylene	109	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
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Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1107	14-06-0297-9-A	06/04/14 10:16	Solid	GC 58	06/04/14	06/07/14 11:39	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

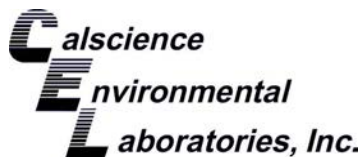
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	60-125	
2,4,5,6-Tetrachloro-m-Xylene	110	50-130	

#1108	14-06-0297-10-A	06/04/14 10:17	Solid	GC 58	06/04/14	06/07/14 11:57	140604L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	93	60-125	
2,4,5,6-Tetrachloro-m-Xylene	109	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1109	14-06-0297-11-A	06/04/14 10:18	Solid	GC 58	06/04/14	06/07/14 12:15	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	51	1.00	
Aroclor-1221	ND	51	1.00	
Aroclor-1232	ND	51	1.00	
Aroclor-1242	ND	51	1.00	
Aroclor-1248	ND	51	1.00	
Aroclor-1254	ND	51	1.00	
Aroclor-1260	730	51	1.00	
Aroclor-1262	ND	51	1.00	
Aroclor-1268	ND	51	1.00	

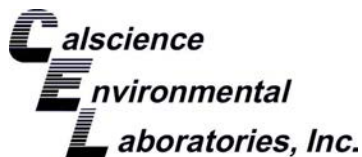
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	233	60-125	2,7
2,4,5,6-Tetrachloro-m-Xylene	105	50-130	

#1110	14-06-0297-12-A	06/04/14 10:16	Solid	GC 58	06/04/14	06/07/14 12:32	140604L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	92	60-125	
2,4,5,6-Tetrachloro-m-Xylene	108	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1111	14-06-0297-13-A	06/04/14 10:12	Solid	GC 58	06/04/14	06/07/14 12:51	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

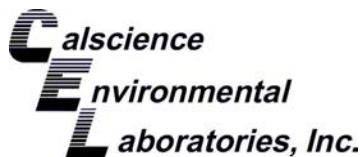
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	60-125	
2,4,5,6-Tetrachloro-m-Xylene	108	50-130	

#1112	14-06-0297-14-A	06/04/14 10:11	Solid	GC 58	06/04/14	06/07/14 13:09	140604L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	60-125	
2,4,5,6-Tetrachloro-m-Xylene	103	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1113	14-06-0297-15-A	06/04/14 10:09	Solid	GC 58	06/04/14	06/07/14 13:26	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

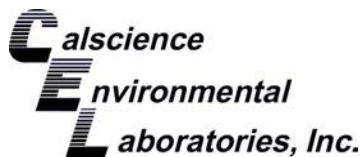
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	60-125	
2,4,5,6-Tetrachloro-m-Xylene	101	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1114	14-06-0297-16-A	06/04/14 10:10	Solid	GC 58	06/04/14	06/07/14 13:44	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	94	60-125	
2,4,5,6-Tetrachloro-m-Xylene	90	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1115	14-06-0297-17-A	06/04/14 10:24	Solid	GC 58	06/04/14	06/07/14 14:02	140604L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

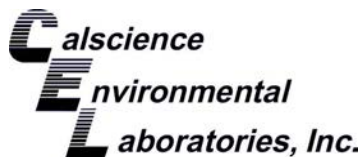
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	60-125	
2,4,5,6-Tetrachloro-m-Xylene	103	50-130	

Method Blank	099-02-003-263	N/A	Solid	GC 58	06/04/14	06/06/14 22:58	140604L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	104	60-125	
2,4,5,6-Tetrachloro-m-Xylene	109	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)

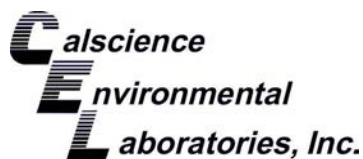
Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type		Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number			
#1099	Sample		Solid	GC 48	06/05/14	06/05/14 16:28	140605S05			
#1099	Matrix Spike		Solid	GC 48	06/05/14	06/05/14 15:55	140605S05			
#1099	Matrix Spike Duplicate		Solid	GC 48	06/05/14	06/05/14 16:11	140605S05			
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Diesel	364.5	400.0	593.7	57	861.3	124	64-130	37	0-15	3,4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B

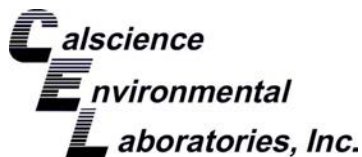
Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
#1099	Sample	Solid	ICP 7300	06/05/14	06/05/14 19:14	140605S01				
#1099	Matrix Spike	Solid	ICP 7300	06/05/14	06/05/14 19:12	140605S01				
#1099	Matrix Spike Duplicate	Solid	ICP 7300	06/05/14	06/05/14 19:13	140605S01				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	11.15	45	11.44	46	50-115	3	0-20	3
Arsenic	2.758	25.00	29.04	105	28.54	103	75-125	2	0-20	
Barium	149.8	25.00	174.0	4X	174.8	4X	75-125	4X	0-20	Q
Beryllium	0.3880	25.00	26.85	106	27.07	107	75-125	1	0-20	
Cadmium	ND	25.00	25.96	104	26.10	104	75-125	1	0-20	
Chromium	18.45	25.00	44.73	105	45.33	107	75-125	1	0-20	
Cobalt	11.92	25.00	38.51	106	38.90	108	75-125	1	0-20	
Copper	29.80	25.00	70.48	163	59.09	117	75-125	18	0-20	3
Lead	59.66	25.00	98.49	155	67.25	30	75-125	38	0-20	3,4
Molybdenum	ND	25.00	25.26	101	25.36	101	75-125	0	0-20	
Nickel	17.44	25.00	44.91	110	41.71	97	75-125	7	0-20	
Selenium	ND	25.00	20.77	83	21.09	84	75-125	2	0-20	
Silver	ND	12.50	13.13	105	13.19	105	75-125	0	0-20	
Thallium	ND	25.00	19.90	80	20.04	80	75-125	1	0-20	
Vanadium	36.58	25.00	61.37	99	62.44	103	75-125	2	0-20	
Zinc	81.85	25.00	138.2	225	106.1	97	75-125	26	0-20	3,4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14

Work Order: 14-06-0297

Preparation: EPA 7471A Total

Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

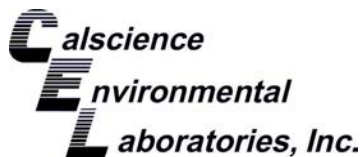
Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1099	Sample	Solid	Mercury 05	06/05/14	06/05/14 19:45	140605S01
#1099	Matrix Spike	Solid	Mercury 05	06/05/14	06/05/14 19:47	140605S01
#1099	Matrix Spike Duplicate	Solid	Mercury 05	06/05/14	06/05/14 19:49	140605S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.8923	107	0.8774	105	71-137	2	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

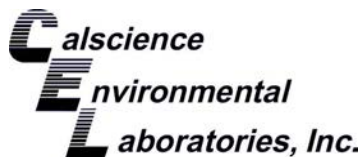
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1102	Sample	Solid	GC 58	06/04/14	06/07/14 10:08	140604S16
#1102	Matrix Spike	Solid	GC 58	06/04/14	06/07/14 14:20	140604S16
#1102	Matrix Spike Duplicate	Solid	GC 58	06/04/14	06/07/14 14:38	140604S16

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	86.31	86	78.60	79	50-135	9	0-25	
Aroclor-1260	ND	100.0	76.58	77	76.30	76	50-135	0	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

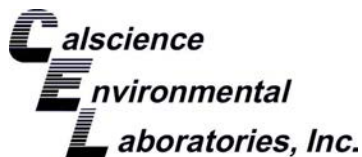
Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-943	LCS	Solid	GC 48	06/05/14	06/05/14 15:40	140605B05
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	314.5	79	75-123	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18449	LCS	Solid	ICP 7300	06/05/14	06/05/14 19:06	140605L01
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	26.72	107	80-120	73-127	
Arsenic	25.00	26.19	105	80-120	73-127	
Barium	25.00	26.87	107	80-120	73-127	
Beryllium	25.00	26.00	104	80-120	73-127	
Cadmium	25.00	27.36	109	80-120	73-127	
Chromium	25.00	27.22	109	80-120	73-127	
Cobalt	25.00	29.41	118	80-120	73-127	
Copper	25.00	26.78	107	80-120	73-127	
Lead	25.00	27.36	109	80-120	73-127	
Molybdenum	25.00	27.03	108	80-120	73-127	
Nickel	25.00	28.34	113	80-120	73-127	
Selenium	25.00	24.10	96	80-120	73-127	
Silver	12.50	13.27	106	80-120	73-127	
Thallium	25.00	28.30	113	80-120	73-127	
Vanadium	25.00	26.18	105	80-120	73-127	
Zinc	25.00	27.49	110	80-120	73-127	

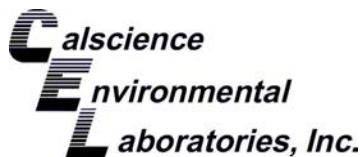
Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 7471A Total
Method: EPA 7471A

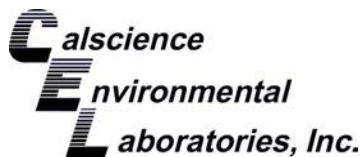
Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-288	LCS	Solid	Mercury 05	06/05/14	06/05/14 19:43	140605L01

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.9080	109	85-121	

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

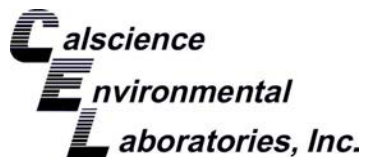
Date Received: 06/04/14
Work Order: 14-06-0297
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-02-003-263	LCS	Solid	GC 58	06/04/14	06/06/14 23:16	140604L16
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	80.94	81	50-135	
Aroclor-1260		100.0	129.3	129	60-130	

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Sample Analysis Summary Report

Work Order: 14-06-0297

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8015B (M)	EPA 3550B	847	GC 48	1
EPA 8082	EPA 3540C	842	GC 58	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-06-0297

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CHAIN-OF-CUSTODY RECORD

[illegible]

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 06/4/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.7 °C - 0.3 °C (CF) = 2.4 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by:)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 678

CUSTODY SEALS INTACT:

☐ Cooler ☐
☐ No (Not Intact)

☒ Not Present

☐ N/A

Checked by: 678

☐ Sample ☐
☐ No (Not Intact)

☒ Not Present

Checked by: 826

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ EnCores® ☐ TerraCores® ☐

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s
☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ ☐ ☐

Air: ☐ Tedlar® ☐ Canister Other: ☐ Trip Blank Lot#: Labeled/Checked by: 826

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 659

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: 659



Calscience

Supplemental Report 1

The original report has been revised/corrected.



WORK ORDER NUMBER: 14-06-0415

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/13/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 14-06-0415

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Work Order Narrative

Work Order: 14-06-0415Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/05/14. They were assigned to Work Order 14-06-0415.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: AMEC Environment & Infrastructure	Work Order: 14-06-0415
121 Innovation Drive, Suite 200	Project Name: Former Pechiney Cast Plate Facility / 0106270030
Irvine, CA 92617-3094	PO Number:
	Date/Time Received: 06/05/14 17:15
	Number of Containers: 10
Attn: Linda Conlan	

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1116	14-06-0415-1	06/05/14 09:24	1	Solid
#1117	14-06-0415-2	06/05/14 09:25	1	Solid
#1118	14-06-0415-3	06/05/14 09:26	1	Solid
#1119	14-06-0415-4	06/05/14 09:28	1	Solid
#1120	14-06-0415-5	06/05/14 09:29	1	Solid
#1121	14-06-0415-6	06/05/14 09:29	1	Solid
#1122	14-06-0415-7	06/05/14 13:29	1	Solid
#1123	14-06-0415-8	06/05/14 13:40	1	Solid
#1124	14-06-0415-9	06/05/14 13:55	1	Solid
755-IV-F/F-SS-002	14-06-0415-10	06/05/14 14:16	1	Solid

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0415
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/05/14

Attn: Linda Conlan

Page 1 of 4

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1116 (14-06-0415-1)						
Arsenic	1.08		0.728	mg/kg	EPA 6010B	EPA 3050B
Barium	109		0.485	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.330		0.243	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.9		0.243	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.1		0.243	mg/kg	EPA 6010B	EPA 3050B
Copper	14.6		0.485	mg/kg	EPA 6010B	EPA 3050B
Lead	1.67		0.485	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.4		0.243	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.7		0.243	mg/kg	EPA 6010B	EPA 3050B
Zinc	50.5		0.971	mg/kg	EPA 6010B	EPA 3050B
#1117 (14-06-0415-2)						
Arsenic	1.38		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	137		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.326		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	24.6		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	30.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	110		1.00	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	120		50	ug/kg	EPA 8082	EPA 3540C

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* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Work Order: 14-06-0415
 Project Name: Former Pechiney Cast Plate Facility /
 0106270030
 Received: 06/05/14

Attn: Linda Conlan

Page 2 of 4

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1118 (14-06-0415-3)						
Antimony	27.6		0.735	mg/kg	EPA 6010B	EPA 3050B
Arsenic	2.43		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	245		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.369		0.245	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.9		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.3		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	156		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	613		0.490	mg/kg	EPA 6010B	EPA 3050B
Nickel	18.8		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.7		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	297		0.980	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0942		0.0862	mg/kg	EPA 7471A	EPA 7471A Total
C23-C24	43		5.1	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	39		5.1	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	39		5.1	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	18		5.1	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	8.4		5.1	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	150		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
#1119 (14-06-0415-4)						
Arsenic	0.933		0.725	mg/kg	EPA 6010B	EPA 3050B
Barium	143		0.483	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.334		0.242	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.0		0.242	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.4		0.242	mg/kg	EPA 6010B	EPA 3050B
Copper	22.0		0.483	mg/kg	EPA 6010B	EPA 3050B
Lead	12.5		0.483	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.7		0.242	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.9		0.242	mg/kg	EPA 6010B	EPA 3050B
Zinc	116		0.966	mg/kg	EPA 6010B	EPA 3050B

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* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Work Order: 14-06-0415
 Project Name: Former Pechiney Cast Plate Facility /
 0106270030
 Received: 06/05/14

Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1120 (14-06-0415-5)						
Arsenic	2.01		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	536		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.293		0.246	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.1		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.53		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	1060		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	679		0.493	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.720		0.246	mg/kg	EPA 6010B	EPA 3050B
Nickel	17.3		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.6		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	633		0.985	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.165		0.0806	mg/kg	EPA 7471A	EPA 7471A Total
C21-C22	20		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	47		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	60		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	67		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	27		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	15		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	5.9		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	240		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
#1121 (14-06-0415-6)						
Arsenic	1.56		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	129		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.352		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.5		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.8		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	20.4		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	11.1		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	16.2		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.4		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	64.7		0.990	mg/kg	EPA 6010B	EPA 3050B
C25-C28	5.6		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	7.0		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	21		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1248	150		51	ug/kg	EPA 8082	EPA 3540C
#1123 (14-06-0415-8)						
Arsenic	1.86		0.721	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-0415
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/05/14

Attn: Linda Conlan

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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
#1124 (14-06-0415-9)						
Arsenic	3.12		0.735	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.


Return to Contents

* MDL is shown

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/05/14
 Work Order: 14-06-0415
 Preparation: EPA 3550B
 Method: EPA 8015B (M)
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1116	14-06-0415-1-A	06/05/14 09:24	Solid	GC 48	06/06/14	06/06/14 17:19	140606B01A

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	76	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1117	14-06-0415-2-A	06/05/14 09:25	Solid	GC 48	06/06/14	06/06/14 17:35	140606B01A

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	74	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 3 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1118	14-06-0415-3-A	06/05/14 09:26	Solid	GC 48	06/06/14	06/06/14 17:51	140606B01A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.1	1.00	
C7	ND	5.1	1.00	
C8	ND	5.1	1.00	
C9-C10	ND	5.1	1.00	
C11-C12	ND	5.1	1.00	
C13-C14	ND	5.1	1.00	
C15-C16	ND	5.1	1.00	
C17-C18	ND	5.1	1.00	
C19-C20	ND	5.1	1.00	
C21-C22	ND	5.1	1.00	
C23-C24	43	5.1	1.00	
C25-C28	39	5.1	1.00	
C29-C32	39	5.1	1.00	
C33-C36	18	5.1	1.00	
C37-C40	8.4	5.1	1.00	
C41-C44	ND	5.1	1.00	
C6-C44 Total	150	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	63	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/05/14
 Work Order: 14-06-0415
 Preparation: EPA 3550B
 Method: EPA 8015B (M)
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 4 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1119	14-06-0415-4-A	06/05/14 09:28	Solid	GC 48	06/06/14	06/06/14 18:07	140606B01A

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	67	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1120	14-06-0415-5-A	06/05/14 09:29	Solid	GC 48	06/06/14	06/06/14 18:23	140606B01A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	20	5.0	1.00	
C23-C24	47	5.0	1.00	
C25-C28	60	5.0	1.00	
C29-C32	67	5.0	1.00	
C33-C36	27	5.0	1.00	
C37-C40	15	5.0	1.00	
C41-C44	5.9	5.0	1.00	
C6-C44 Total	240	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	69	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1121	14-06-0415-6-A	06/05/14 09:29	Solid	GC 48	06/06/14	06/06/14 18:39	140606B01A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	5.6	4.9	1.00	
C29-C32	7.0	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	21	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	69	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/05/14
 Work Order: 14-06-0415
 Preparation: EPA 3550B
 Method: EPA 8015B (M)
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-490-945	N/A	Solid	GC 48	06/06/14	06/06/14 12:17	140606B01A

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	78	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1123	14-06-0415-8-A	06/05/14 13:40	Solid	ICP 7300	06/05/14	06/10/14 14:23	140605L05
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Arsenic		1.86	0.721	0.962			
#1124	14-06-0415-9-A	06/05/14 13:55	Solid	ICP 7300	06/05/14	06/10/14 14:24	140605L05
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Arsenic		3.12	0.735	0.980			
Method Blank	097-01-002-18455	N/A	Solid	ICP 7300	06/05/14	06/06/14 18:19	140605L05
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>	
Arsenic		ND	0.750	1.00			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/05/14
 Work Order: 14-06-0415
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1116	14-06-0415-1-A	06/05/14 09:24	Solid	ICP 7300	06/05/14	06/06/14 20:11	140605L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.728	0.971	
Arsenic	1.08	0.728	0.971	
Barium	109	0.485	0.971	
Beryllium	0.330	0.243	0.971	
Cadmium	ND	0.485	0.971	
Chromium	13.9	0.243	0.971	
Cobalt	10.1	0.243	0.971	
Copper	14.6	0.485	0.971	
Lead	1.67	0.485	0.971	
Molybdenum	ND	0.243	0.971	
Nickel	10.4	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	ND	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	31.7	0.243	0.971	
Zinc	50.5	0.971	0.971	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1117	14-06-0415-2-A	06/05/14 09:25	Solid	ICP 7300	06/05/14	06/06/14 20:12	140605L05

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.750	1.00	
Arsenic	1.38	0.750	1.00	
Barium	137	0.500	1.00	
Beryllium	0.326	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	17.8	0.250	1.00	
Cobalt	10.7	0.250	1.00	
Copper	24.6	0.500	1.00	
Lead	30.4	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	13.4	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	33.0	0.250	1.00	
Zinc	110	1.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1118	14-06-0415-3-A	06/05/14 09:26	Solid	ICP 7300	06/05/14	06/06/14 20:13	140605L05

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	27.6	0.735	0.980	
Arsenic	2.43	0.735	0.980	
Barium	245	0.490	0.980	
Beryllium	0.369	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	20.9	0.245	0.980	
Cobalt	12.3	0.245	0.980	
Copper	156	0.490	0.980	
Lead	613	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	18.8	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	35.7	0.245	0.980	
Zinc	297	0.980	0.980	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/05/14
 Work Order: 14-06-0415
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1119	14-06-0415-4-A	06/05/14 09:28	Solid	ICP 7300	06/05/14	06/06/14 20:19	140605L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.725	0.966	
Arsenic	0.933	0.725	0.966	
Barium	143	0.483	0.966	
Beryllium	0.334	0.242	0.966	
Cadmium	ND	0.483	0.966	
Chromium	16.0	0.242	0.966	
Cobalt	12.4	0.242	0.966	
Copper	22.0	0.483	0.966	
Lead	12.5	0.483	0.966	
Molybdenum	ND	0.242	0.966	
Nickel	12.7	0.242	0.966	
Selenium	ND	0.725	0.966	
Silver	ND	0.242	0.966	
Thallium	ND	0.725	0.966	
Vanadium	32.9	0.242	0.966	
Zinc	116	0.966	0.966	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1120	14-06-0415-5-A	06/05/14 09:29	Solid	ICP 7300	06/05/14	06/06/14 20:20	140605L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	2.01	0.739	0.985	
Barium	536	0.493	0.985	
Beryllium	0.293	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	18.1	0.246	0.985	
Cobalt	9.53	0.246	0.985	
Copper	1060	0.493	0.985	
Lead	679	0.493	0.985	
Molybdenum	0.720	0.246	0.985	
Nickel	17.3	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	29.6	0.246	0.985	
Zinc	633	0.985	0.985	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1121	14-06-0415-6-A	06/05/14 09:29	Solid	ICP 7300	06/05/14	06/06/14 20:21	140605L05

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.743	0.990	
Arsenic	1.56	0.743	0.990	
Barium	129	0.495	0.990	
Beryllium	0.352	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	17.5	0.248	0.990	
Cobalt	12.8	0.248	0.990	
Copper	20.4	0.495	0.990	
Lead	11.1	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	16.2	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	32.4	0.248	0.990	
Zinc	64.7	0.990	0.990	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18455	N/A	Solid	ICP 7300	06/05/14	06/06/14 18:19	140605L05

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1116	14-06-0415-1-A	06/05/14 09:24	Solid	Mercury 05	06/06/14	06/06/14 16:31	140606L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0806	1.00			
#1117	14-06-0415-2-A	06/05/14 09:25	Solid	Mercury 05	06/06/14	06/06/14 16:33	140606L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
#1118	14-06-0415-3-A	06/05/14 09:26	Solid	Mercury 05	06/06/14	06/06/14 16:36	140606L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.0942	0.0862	1.00			
#1119	14-06-0415-4-A	06/05/14 09:28	Solid	Mercury 05	06/06/14	06/06/14 16:38	140606L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0847	1.00			
#1120	14-06-0415-5-A	06/05/14 09:29	Solid	Mercury 05	06/06/14	06/06/14 16:40	140606L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.165	0.0806	1.00			
#1121	14-06-0415-6-A	06/05/14 09:29	Solid	Mercury 05	06/06/14	06/06/14 16:42	140606L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
Method Blank	099-16-272-291	N/A	Solid	Mercury 05	06/06/14	06/06/14 15:55	140606L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1116	14-06-0415-1-A	06/05/14 09:24	Solid	GC 31	06/05/14	06/07/14 04:14	140605L24

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	93	60-125	
2,4,5,6-Tetrachloro-m-Xylene	100	50-130	

#1117	14-06-0415-2-A	06/05/14 09:25	Solid	GC 31	06/05/14	06/07/14 04:33	140605L24
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	120	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	60-125	
2,4,5,6-Tetrachloro-m-Xylene	94	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1118	14-06-0415-3-A	06/05/14 09:26	Solid	GC 31	06/05/14	06/07/14 04:52	140605L24

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	107	60-125	
2,4,5,6-Tetrachloro-m-Xylene	91	50-130	

#1119	14-06-0415-4-A	06/05/14 09:28	Solid	GC 31	06/05/14	06/07/14 05:11	140605L24
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	60-125	
2,4,5,6-Tetrachloro-m-Xylene	96	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1120	14-06-0415-5-A	06/05/14 09:29	Solid	GC 31	06/05/14	06/07/14 05:31	140605L24

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	105	60-125	
2,4,5,6-Tetrachloro-m-Xylene	94	50-130	

#1121	14-06-0415-6-A	06/05/14 09:29	Solid	GC 31	06/05/14	06/07/14 05:50	140605L24
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	51	1.00	
Aroclor-1221	ND	51	1.00	
Aroclor-1232	ND	51	1.00	
Aroclor-1242	ND	51	1.00	
Aroclor-1248	150	51	1.00	
Aroclor-1254	ND	51	1.00	
Aroclor-1260	ND	51	1.00	
Aroclor-1262	ND	51	1.00	
Aroclor-1268	ND	51	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	99	60-125	
2,4,5,6-Tetrachloro-m-Xylene	96	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1122	14-06-0415-7-A	06/05/14 13:29	Solid	GC 31	06/05/14	06/07/14 06:09	140605L24

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	101	60-125	
2,4,5,6-Tetrachloro-m-Xylene	104	50-130	

755-IV-F/F-SS-002	14-06-0415-10-A	06/05/14 14:16	Solid	GC 31	06/05/14	06/07/14 06:28	140605L24
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	60-125	
2,4,5,6-Tetrachloro-m-Xylene	105	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-003-262	N/A	Solid	GC 31	06/05/14	06/07/14 02:58	140605L24

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	109	60-125	
2,4,5,6-Tetrachloro-m-Xylene	101	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
14-06-0418-1	Sample	Solid	GC 48	06/06/14	06/06/14 13:20	140606S01				
14-06-0418-1	Matrix Spike	Solid	GC 48	06/06/14	06/06/14 12:49	140606S01				
14-06-0418-1	Matrix Spike Duplicate	Solid	GC 48	06/06/14	06/06/14 13:05	140606S01				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	314.7	79	318.2	80	55-133	1	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-0418-1	Sample	Solid	ICP 7300	06/05/14	06/06/14 18:24	140605S05
14-06-0418-1	Matrix Spike	Solid	ICP 7300	06/05/14	06/06/14 18:25	140605S05
14-06-0418-1	Matrix Spike Duplicate	Solid	ICP 7300	06/05/14	06/06/14 18:26	140605S05

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	9.061	36	8.937	36	50-115	1	0-20	3
Arsenic	3.350	25.00	27.16	95	27.72	97	75-125	2	0-20	
Barium	186.8	25.00	197.3	4X	206.7	4X	75-125	4X	0-20	Q
Beryllium	0.6216	25.00	26.49	103	26.79	105	75-125	1	0-20	
Cadmium	ND	25.00	25.06	100	25.19	101	75-125	1	0-20	
Chromium	22.74	25.00	48.08	101	50.02	109	75-125	4	0-20	
Cobalt	9.878	25.00	34.46	98	35.85	104	75-125	4	0-20	
Copper	19.25	25.00	44.35	100	46.18	108	75-125	4	0-20	
Lead	2.871	25.00	26.86	96	27.38	98	75-125	2	0-20	
Molybdenum	1.221	25.00	22.53	85	23.27	88	75-125	3	0-20	
Nickel	11.45	25.00	35.13	95	37.08	103	75-125	5	0-20	
Selenium	ND	25.00	17.71	71	19.46	78	75-125	9	0-20	3
Silver	ND	12.50	12.53	100	12.66	101	75-125	1	0-20	
Thallium	ND	25.00	19.15	77	19.84	79	75-125	4	0-20	
Vanadium	45.41	25.00	71.62	105	71.85	106	75-125	0	0-20	
Zinc	78.37	25.00	102.7	97	104.4	104	75-125	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-0419-6	Sample	Solid	Mercury 05	06/06/14	06/06/14 16:00	140606S01
14-06-0419-6	Matrix Spike	Solid	Mercury 05	06/06/14	06/06/14 16:02	140606S01
14-06-0419-6	Matrix Spike Duplicate	Solid	Mercury 05	06/06/14	06/06/14 16:04	140606S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.9549	114	0.9388	112	71-137	2	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1120	Sample	Solid	GC 31	06/05/14	06/07/14 05:31	140605S24
#1120	Matrix Spike	Solid	GC 31	06/05/14	06/07/14 03:36	140605S24
#1120	Matrix Spike Duplicate	Solid	GC 31	06/05/14	06/07/14 03:55	140605S24

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	95.10	95	95.67	96	50-135	1	0-25	
Aroclor-1260	ND	100.0	96.07	96	92.29	92	50-135	4	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/05/14
 Work Order: 14-06-0415
 Preparation: EPA 3550B
 Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-945	LCS	Solid	GC 48	06/06/14	06/06/14 12:33	140606B01A
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	322.6	81	75-123	

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18455	LCS	Solid	ICP 7300	06/05/14	06/06/14 18:23	140605L05
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	24.82	99	80-120	73-127	
Arsenic	25.00	23.94	96	80-120	73-127	
Barium	25.00	25.36	101	80-120	73-127	
Beryllium	25.00	24.49	98	80-120	73-127	
Cadmium	25.00	25.53	102	80-120	73-127	
Chromium	25.00	25.24	101	80-120	73-127	
Cobalt	25.00	27.65	111	80-120	73-127	
Copper	25.00	25.71	103	80-120	73-127	
Lead	25.00	25.18	101	80-120	73-127	
Molybdenum	25.00	25.42	102	80-120	73-127	
Nickel	25.00	26.43	106	80-120	73-127	
Selenium	25.00	22.40	90	80-120	73-127	
Silver	12.50	12.55	100	80-120	73-127	
Thallium	25.00	26.59	106	80-120	73-127	
Vanadium	25.00	24.38	98	80-120	73-127	
Zinc	25.00	25.55	102	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-291	LCS	Solid	Mercury 05	06/06/14	06/06/14 15:58	140606L01

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.9229	111	85-121	

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/05/14
Work Order: 14-06-0415
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-02-003-262	LCS	Solid	GC 31	06/05/14	06/07/14 03:17	140605L24
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	83.34	83	50-135	
Aroclor-1260		100.0	90.54	91	60-130	

Sample Analysis Summary Report

Work Order: 14-06-0415

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8015B (M)	EPA 3550B	847	GC 48	1
EPA 8082	EPA 3540C	842	GC 31	1

Glossary of Terms and Qualifiers

Work Order: 14-06-0415

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Stephen Nowak

From: Lee, Zhur [zhur.lee@amec.com]
Sent: Friday, June 13, 2014 11:29 AM
To: Maricris dela Rosa; Costamagna, Daniel G; Holland, Kim; Conlan, Linda; Huang, Stephen
Cc: Stephen Nowak
Subject: RE: Former Pechiney Cast Plate Facility / 0106270030 / CEL 14-06-0415

Maricris/Stephen,

Please revise sample ID 755-IV-F/F-SS-001 on report 14-06-0415 to 755-IV-F/F-SS-002 and provide an updated report once the revision is made.

Thank you,

Zhur Lee
Project Coordinator
AMEC
 Environment & Infrastructure
 121 Innovation Drive, Suite 200, Irvine, CA 92617
 Tel 949-642-0245 x1591, Fax 949-642-4474
zhur.lee@amec.com

From: Maricris dela Rosa [<mailto:MaricrisdelaRosa@eurofinsUS.com>]
Sent: Tuesday, June 10, 2014 4:01 PM
To: Costamagna, Daniel G; Holland, Kim; Conlan, Linda; Huang, Stephen; Lee, Zhur
Subject: Former Pechiney Cast Plate Facility / 0106270030 / CEL 14-06-0415

Report and EDD attached.

Thank you,
 Maricris Dela Rosa
 Project Manager Assistant

Eurofins Calscience, Inc.
 7440 Lincoln Way
 Garden Grove, CA 92841-1427
 USA
 Phone: +1 (714) 895-5494
 Email: maricrisdelarosa@eurofinsus.com
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Calscience

WORK ORDER #: 14-06-0415

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 06/05/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.0 °C - 0.3 °C (CF) = 2.7 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 804

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____ ☐ No (Not Intact) ☒ Not Present ☐ N/A

Checked by: 804

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present

Checked by: 804

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ ☐ ☒

Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBz₂na ☐ 100PJ ☐ 100PJna₂ ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: 804

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 802

Preservative: h: HCL n: HNO₃ na₂:Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure z₂na: ZnAc₂+NaOH f: Filtered Scanned by: 802



Calscience



WORK ORDER NUMBER: 14-06-1215

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/18/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030
 Work Order Number: 14-06-1215

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Work Order Narrative

Work Order: 14-06-1215Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/16/14. They were assigned to Work Order 14-06-1215.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: AMEC Environment & Infrastructure	Work Order: 14-06-1215
121 Innovation Drive, Suite 200	Project Name: Former Pechiney Cast Plate Facility /
Irvine, CA 92617-3094	0106270030
	PO Number:
	Date/Time Received: 06/16/14 16:48
	Number of Containers: 6

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1126	14-06-1215-1	06/16/14 11:17	1	Solid
#1127	14-06-1215-2	06/16/14 11:18	1	Solid
#1128	14-06-1215-3	06/16/14 11:21	1	Solid
#1129	14-06-1215-4	06/16/14 11:23	1	Solid
#1130	14-06-1215-5	06/16/14 11:24	1	Solid
#1131	14-06-1215-6	06/16/14 11:26	1	Solid

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-1215
Project Name: Former Pechiney Cast Plate Facility / 0106270030
Received: 06/16/14

Attn: Linda Conlan

Page 1 of 2

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1126 (14-06-1215-1)						
Arsenic	1.43		0.773	mg/kg	EPA 6010B	EPA 3050B
Barium	117		0.515	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.314		0.258	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.9		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.2		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	13.8		0.515	mg/kg	EPA 6010B	EPA 3050B
Lead	0.905		0.515	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.4		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.0		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	45.2		1.03	mg/kg	EPA 6010B	EPA 3050B
#1127 (14-06-1215-2)						
Arsenic	1.35		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	119		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.326		0.251	mg/kg	EPA 6010B	EPA 3050B
Chromium	14.7		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.9		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	16.2		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	0.703		0.503	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.390		0.251	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.0		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.4		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	50.2		1.01	mg/kg	EPA 6010B	EPA 3050B
#1128 (14-06-1215-3)						
Arsenic	1.97		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	121		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.327		0.245	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.0		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.7		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	14.6		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	1.38		0.490	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.9		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.5		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	50.6		0.980	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Work Order: 14-06-1215
 Project Name: Former Pechiney Cast Plate Facility /
 0106270030
 Received: 06/16/14

Attn: Linda Conlan

Page 2 of 2

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1129 (14-06-1215-4)						
Arsenic	2.27		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	122		0.508	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.340		0.254	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.7		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.9		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	20.8		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	5.76		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.6		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.4		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	55.9		1.02	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.121		0.0820	mg/kg	EPA 7471A	EPA 7471A Total
#1130 (14-06-1215-5)						
Arsenic	1.09		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	113		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.314		0.253	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.9		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.0		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	14.0		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	1.06		0.505	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.3		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	30.8		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	44.8		1.01	mg/kg	EPA 6010B	EPA 3050B
#1131 (14-06-1215-6)						
Arsenic	9.99		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	121		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.341		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	28.3		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	22.8		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	75.1		1.00	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/16/14
Work Order: 14-06-1215
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1126	14-06-1215-1-A	06/16/14 11:17	Solid	ICP 7300	06/16/14	06/17/14 20:19	140616L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.773	1.03	
Arsenic	1.43	0.773	1.03	
Barium	117	0.515	1.03	
Beryllium	0.314	0.258	1.03	
Cadmium	ND	0.515	1.03	
Chromium	13.9	0.258	1.03	
Cobalt	10.2	0.258	1.03	
Copper	13.8	0.515	1.03	
Lead	0.905	0.515	1.03	
Molybdenum	ND	0.258	1.03	
Nickel	10.4	0.258	1.03	
Selenium	ND	0.773	1.03	
Silver	ND	0.258	1.03	
Thallium	ND	0.773	1.03	
Vanadium	31.0	0.258	1.03	
Zinc	45.2	1.03	1.03	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/16/14
 Work Order: 14-06-1215
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1127	14-06-1215-2-A	06/16/14 11:18	Solid	ICP 7300	06/16/14	06/17/14 20:20	140616L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	1.35	0.754	1.01	
Barium	119	0.503	1.01	
Beryllium	0.326	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	14.7	0.251	1.01	
Cobalt	10.9	0.251	1.01	
Copper	16.2	0.503	1.01	
Lead	0.703	0.503	1.01	
Molybdenum	0.390	0.251	1.01	
Nickel	11.0	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	32.4	0.251	1.01	
Zinc	50.2	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/16/14
Work Order: 14-06-1215
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1128	14-06-1215-3-A	06/16/14 11:21	Solid	ICP 7300	06/16/14	06/17/14 20:22	140616L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	1.97	0.735	0.980	
Barium	121	0.490	0.980	
Beryllium	0.327	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	15.0	0.245	0.980	
Cobalt	10.7	0.245	0.980	
Copper	14.6	0.490	0.980	
Lead	1.38	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	10.9	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	32.5	0.245	0.980	
Zinc	50.6	0.980	0.980	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/16/14
 Work Order: 14-06-1215
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1129	14-06-1215-4-A	06/16/14 11:23	Solid	ICP 7300	06/16/14	06/17/14 20:23	140616L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	2.27	0.761	1.02	
Barium	122	0.508	1.02	
Beryllium	0.340	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	15.7	0.254	1.02	
Cobalt	10.9	0.254	1.02	
Copper	20.8	0.508	1.02	
Lead	5.76	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	11.6	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	33.4	0.254	1.02	
Zinc	55.9	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/16/14
Work Order: 14-06-1215
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1130	14-06-1215-5-A	06/16/14 11:24	Solid	ICP 7300	06/16/14	06/17/14 20:28	140616L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	1.09	0.758	1.01	
Barium	113	0.505	1.01	
Beryllium	0.314	0.253	1.01	
Cadmium	ND	0.505	1.01	
Chromium	13.9	0.253	1.01	
Cobalt	10.0	0.253	1.01	
Copper	14.0	0.505	1.01	
Lead	1.06	0.505	1.01	
Molybdenum	ND	0.253	1.01	
Nickel	10.3	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	30.8	0.253	1.01	
Zinc	44.8	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/16/14
Work Order: 14-06-1215
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1131	14-06-1215-6-A	06/16/14 11:26	Solid	ICP 7300	06/16/14	06/17/14 20:29	140616L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	9.99	0.750	1.00	
Barium	121	0.500	1.00	
Beryllium	0.341	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	15.4	0.250	1.00	
Cobalt	10.6	0.250	1.00	
Copper	28.3	0.500	1.00	
Lead	22.8	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	11.7	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	32.8	0.250	1.00	
Zinc	75.1	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/16/14
Work Order: 14-06-1215
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18493	N/A	Solid	ICP 7300	06/16/14	06/17/14 19:57	140616L04

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/16/14
Work Order: 14-06-1215
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1126	14-06-1215-1-A	06/16/14 11:17	Solid	Mercury 05	06/16/14	06/17/14 13:53	140616L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0794	1.00			
#1127	14-06-1215-2-A	06/16/14 11:18	Solid	Mercury 05	06/16/14	06/17/14 13:56	140616L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
#1128	14-06-1215-3-A	06/16/14 11:21	Solid	Mercury 05	06/16/14	06/17/14 13:58	140616L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0806	1.00			
#1129	14-06-1215-4-A	06/16/14 11:23	Solid	Mercury 05	06/16/14	06/17/14 14:04	140616L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.121	0.0820	1.00			
#1130	14-06-1215-5-A	06/16/14 11:24	Solid	Mercury 05	06/16/14	06/17/14 14:07	140616L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0794	1.00			
#1131	14-06-1215-6-A	06/16/14 11:26	Solid	Mercury 05	06/16/14	06/17/14 13:42	140616L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
Method Blank	099-16-272-312	N/A	Solid	Mercury 05	06/16/14	06/17/14 13:38	140616L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/16/14
Work Order: 14-06-1215
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
#1131	Sample	Solid	ICP 7300	06/16/14	06/17/14 20:29	140616S04				
#1131	Matrix Spike	Solid	ICP 7300	06/16/14	06/17/14 20:17	140616S04				
#1131	Matrix Spike Duplicate	Solid	ICP 7300	06/16/14	06/17/14 20:18	140616S04				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	11.50	46	13.20	53	50-115	14	0-20	3
Arsenic	9.989	25.00	32.75	91	34.47	98	75-125	5	0-20	
Barium	121.3	25.00	136.7	4X	149.8	4X	75-125	4X	0-20	Q
Beryllium	0.3407	25.00	24.32	96	26.32	104	75-125	8	0-20	
Cadmium	ND	25.00	23.88	96	26.30	105	75-125	10	0-20	
Chromium	15.42	25.00	38.54	92	41.78	105	75-125	8	0-20	
Cobalt	10.58	25.00	35.27	99	38.93	113	75-125	10	0-20	
Copper	28.28	25.00	51.65	94	54.34	104	75-125	5	0-20	
Lead	22.78	25.00	35.55	51	39.26	66	75-125	10	0-20	3
Molybdenum	ND	25.00	22.72	91	25.07	100	75-125	10	0-20	
Nickel	11.74	25.00	35.08	93	38.64	108	75-125	10	0-20	
Selenium	ND	25.00	18.64	75	21.44	86	75-125	14	0-20	
Silver	ND	12.50	12.03	96	12.91	103	75-125	7	0-20	
Thallium	ND	25.00	17.74	71	19.56	78	75-125	10	0-20	3
Vanadium	32.76	25.00	55.97	93	60.36	110	75-125	8	0-20	
Zinc	75.08	25.00	92.34	69	95.75	83	75-125	4	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/16/14

Work Order: 14-06-1215

Preparation: EPA 7471A Total

Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1131	Sample	Solid	Mercury 05	06/16/14	06/17/14 13:42	140616S04
#1131	Matrix Spike	Solid	Mercury 05	06/16/14	06/17/14 13:44	140616S04
#1131	Matrix Spike Duplicate	Solid	Mercury 05	06/16/14	06/17/14 13:47	140616S04

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.8913	107	0.8730	105	71-137	2	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/16/14
Work Order: 14-06-1215
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18493	LCS	Solid	ICP 7300	06/16/14	06/17/14 20:04	140616L04
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Antimony	25.00	23.54	94	80-120	73-127	
Arsenic	25.00	24.91	100	80-120	73-127	
Barium	25.00	25.26	101	80-120	73-127	
Beryllium	25.00	23.83	95	80-120	73-127	
Cadmium	25.00	25.21	101	80-120	73-127	
Chromium	25.00	25.32	101	80-120	73-127	
Cobalt	25.00	27.58	110	80-120	73-127	
Copper	25.00	25.28	101	80-120	73-127	
Lead	25.00	25.73	103	80-120	73-127	
Molybdenum	25.00	24.69	99	80-120	73-127	
Nickel	25.00	26.10	104	80-120	73-127	
Selenium	25.00	22.20	89	80-120	73-127	
Silver	12.50	12.44	100	80-120	73-127	
Thallium	25.00	26.38	106	80-120	73-127	
Vanadium	25.00	24.38	98	80-120	73-127	
Zinc	25.00	26.71	107	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/16/14
Work Order: 14-06-1215
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-312	LCS	Solid	Mercury 05	06/16/14	06/17/14 13:40	140616L04

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.8104	97	85-121	

Sample Analysis Summary Report

Work Order: 14-06-1215

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1


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Glossary of Terms and Qualifiers

Work Order: 14-06-1215

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CHAIN-OF-CUSTODY RECORD

NB 31210

PROJECT NAME: Former Pechiney Cast Plate Facility			DATE: 6-16-14		PAGE 1 OF 1						
PROJECT NUMBER: 0106270030			REPORTING REQUIREMENTS:								
RESULTS TO: Linda Conlan			14-06-1215								
TURNAROUND TIME: 48 HR											
SAMPLE SHIPMENT METHOD: lab courier			GEOTRACKER REQUIRED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
LABORATORY CONTACT: Steve Nowak			SITE SPECIFIC GLOBAL ID NO.								
LABORATORY NAME: AMEC											
LABORATORY ADDRESS:											
LABORATORY PHONE NUMBER:											
ANALYSES											
SAMPLERS (SIGNATURE): Kimberly Chominsky											
DATE	TIME	SAMPLE NUMBER	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS	
6-16-14	1117	#1126	4oz glass jar	S			X		1		
	1118	#1127		S			X		1		
	1121	#1128		S			X		1		
	1123	#1129		S			X		1		
	1124	#1130		S			X		1		
	1126	#1131		S			X		1		
TOTAL NUMBER OF CONTAINERS: 6											
SAMPLING COMMENTS:											
RELINQUISHED BY:											
SIGNATURE: Kimberly Chominsky		DATE: 6/16/14		TIME: 1400		RECEIVED BY:		DATE: 6/16/14		TIME: 1400	
PRINTED NAME: Kimberly Chominsky						SIGNATURE: Steve Nowak					
COMPANY: AMEC						PRINTED NAME: Steve Nowak					
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						SIGNATURE: Steve Nowak					

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 06/16/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.7 °C - 0.3 °C (CF) = 2.4 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 678

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____ ☐ No (Not Intact) ☒ Not Present ☐ N/A Checked by: 678

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present Checked by: 8m6

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s

☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: 8m6

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope

Reviewed by: 689

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered

Scanned by: 689



Calscience



WORK ORDER NUMBER: 14-06-1827

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 06/26/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Number: 14-06-1827

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Work Order Narrative

Work Order: 14-06-1827Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/24/14. They were assigned to Work Order 14-06-1827.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: AMEC Environment & Infrastructure 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order: 14-06-1827 Project Name: Former Pechiney Cast Plate Facility / 0106270030 PO Number: Date/Time Received: 06/24/14 16:21 Number of Containers: 1
---	---

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
908-V-P/S-SS-001	14-06-1827-1	06/24/14 09:00	1	Solid

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-1827
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/24/14

Attn: Linda Conlan

Page 1 of 1

Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
908-V-P/S-SS-001 (14-06-1827-1)						
Aroclor-1254	79		50	ug/kg	EPA 8082	EPA 3540C

Subcontracted analyses, if any, are not included in this summary.


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* MDL is shown

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1827
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
908-V-P/S-SS-001	14-06-1827-1-A	06/24/14 09:00	Solid	GC 31	06/24/14	06/26/14 00:47	140624L15

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	79	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	60-125	
2,4,5,6-Tetrachloro-m-Xylene	88	50-130	

Method Blank	099-02-003-272	N/A	Solid	GC 31	06/25/14	06/25/14 23:49	140624L15
--------------	----------------	-----	-------	-------	----------	----------------	-----------

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	114	60-125	
2,4,5,6-Tetrachloro-m-Xylene	100	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1827
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
908-V-P/S-SS-001	Sample	Solid	GC 31	06/24/14	06/26/14 00:47	140624S15
908-V-P/S-SS-001	Matrix Spike	Solid	GC 31	06/24/14	06/26/14 05:52	140624S15
908-V-P/S-SS-001	Matrix Spike Duplicate	Solid	GC 31	06/24/14	06/26/14 06:12	140624S15

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	97.45	97	88.88	89	50-135	9	0-25	
Aroclor-1260	ND	100.0	115.1	115	96.93	97	50-135	17	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1827
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-02-003-272	LCS	Solid	GC 31	06/25/14	06/26/14 00:08	140624L15
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	87.32	87	50-135	
Aroclor-1260		100.0	79.66	80	60-130	

Sample Analysis Summary Report

Work Order: 14-06-1827

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8082	EPA 3540C	842	GC 31	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-06-1827

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CHAIN-OF-CUSTODY RECORD

[illegible]

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 06/24/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.4 °C - 0.3 °C (CF) = 3.1 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by:)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 823

CUSTODY SEALS INTACT:

☐ Cooler ☐ ☐ No (Not Intact) ☒ Not Present ☐ N/A

Checked by: 823

☐ Sample ☐ ☐ No (Not Intact) ☒ Not Present

Checked by: 823

SAMPLE CONDITION:

Chain-Of-Custody (COC) document(s) received with samples..... ☒ Yes ☐ No ☐ N/A

COC document(s) received complete..... ☒ Yes ☐ No ☐ N/A

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC..... ☒ Yes ☐ No ☐ N/A

Sample container label(s) consistent with COC..... ☒ Yes ☐ No ☐ N/A

Sample container(s) intact and good condition..... ☒ Yes ☐ No ☐ N/A

Proper containers and sufficient volume for analyses requested..... ☒ Yes ☐ No ☐ N/A

Analyses received within holding time..... ☒ Yes ☐ No ☐ N/A

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ Yes ☐ No ☒ N/A

Proper preservation noted on COC or sample container..... ☐ Yes ☐ No ☒ N/A

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... ☐ Yes ☐ No ☒ N/A

Tedlar bag(s) free of condensation..... ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ EnCores® ☐ TerraCores® ☐

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBznna ☐ 100PJ ☐ 100PJna₂ ☐ ☐ ☐

Air: ☐ Tedlar® ☐ Canister Other: ☐ Trip Blank Lot#: Labeled/Checked by: 823

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 823

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: 823



WORK ORDER NUMBER: 14-06-1828

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

A handwritten signature in black ink, appearing to read "S. Nowak".

Approved for release on 06/25/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 14-06-1828

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Work Order Narrative

Work Order: 14-06-1828Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/24/14. They were assigned to Work Order 14-06-1828.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: AMEC Environment & Infrastructure	Work Order: 14-06-1828
121 Innovation Drive, Suite 200	Project Name: Former Pechiney Cast Plate Facility /
Irvine, CA 92617-3094	0106270030
	PO Number:
	Date/Time Received: 06/24/14 16:21
	Number of Containers: 15
Attn: Linda Conlan	

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1162	14-06-1828-1	06/24/14 08:09	1	Solid
#1163	14-06-1828-2	06/24/14 08:11	1	Solid
#1164	14-06-1828-3	06/24/14 08:14	1	Solid
#1165	14-06-1828-4	06/24/14 08:16	1	Solid
#1166	14-06-1828-5	06/24/14 08:18	1	Solid
#1167	14-06-1828-6	06/24/14 08:20	1	Solid
#1168	14-06-1828-7	06/24/14 08:23	1	Solid
#1169	14-06-1828-8	06/24/14 08:25	1	Solid
#1170	14-06-1828-9	06/24/14 08:27	1	Solid
#1171	14-06-1828-10	06/24/14 08:30	1	Solid
#1172	14-06-1828-11	06/24/14 08:34	1	Solid
#1173	14-06-1828-12	06/24/14 08:38	1	Solid
#1174	14-06-1828-13	06/24/14 08:43	1	Solid
#1175	14-06-1828-14	06/24/14 08:46	1	Solid
#1176	14-06-1828-15	06/24/14 08:49	1	Solid


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Detections Summary

Client: AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Work Order: 14-06-1828
 Project Name: Former Pechiney Cast Plate Facility /
 0106270030
 Received: 06/24/14

Attn: Linda Conlan

Page 1 of 6

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1162 (14-06-1828-1)						
Barium	116		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.351		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.4		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	20.7		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	15.8		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	19.8		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.9		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	95.7		0.990	mg/kg	EPA 6010B	EPA 3050B
#1163 (14-06-1828-2)						
Barium	123		0.508	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.391		0.254	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.7		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.3		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	16.3		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	2.86		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.2		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	40.8		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	55.3		1.02	mg/kg	EPA 6010B	EPA 3050B
#1164 (14-06-1828-3)						
Arsenic	0.796		0.721	mg/kg	EPA 6010B	EPA 3050B
Barium	109		0.481	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.293		0.240	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.3		0.240	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.31		0.240	mg/kg	EPA 6010B	EPA 3050B
Copper	36.3		0.481	mg/kg	EPA 6010B	EPA 3050B
Lead	48.2		0.481	mg/kg	EPA 6010B	EPA 3050B
Nickel	19.5		0.240	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.5		0.240	mg/kg	EPA 6010B	EPA 3050B
Zinc	129		0.962	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.117		0.0847	mg/kg	EPA 7471A	EPA 7471A Total

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-1828
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/24/14

Attn: Linda Conlan

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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
#1165 (14-06-1828-4)						
Arsenic	1.95		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	158		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.341		0.253	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.92		0.505	mg/kg	EPA 6010B	EPA 3050B
Chromium	22.1		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.5		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	37.0		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	45.8		0.505	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.378		0.253	mg/kg	EPA 6010B	EPA 3050B
Nickel	28.4		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.6		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	771		1.01	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.128		0.0806	mg/kg	EPA 7471A	EPA 7471A Total
#1166 (14-06-1828-5)						
Arsenic	2.00		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	125		0.508	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.324		0.254	mg/kg	EPA 6010B	EPA 3050B
Chromium	23.1		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.6		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	52.9		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	94.5		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	44.9		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.2		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	198		1.02	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.125		0.0820	mg/kg	EPA 7471A	EPA 7471A Total

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* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-1828
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/24/14

Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1167 (14-06-1828-6)						
Arsenic	3.87		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	130		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.387		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.623		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	35.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	18.3		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	39.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	39.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	240		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.231		0.0862	mg/kg	EPA 7471A	EPA 7471A Total
#1168 (14-06-1828-7)						
Barium	141		0.515	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.452		0.258	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.0		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.7		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	19.5		0.515	mg/kg	EPA 6010B	EPA 3050B
Lead	2.19		0.515	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.1		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	45.0		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	60.6		1.03	mg/kg	EPA 6010B	EPA 3050B
#1169 (14-06-1828-8)						
Barium	140		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.422		0.246	mg/kg	EPA 6010B	EPA 3050B
Chromium	21.9		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.6		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	26.2		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	13.0		0.493	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.269		0.246	mg/kg	EPA 6010B	EPA 3050B
Nickel	24.2		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	43.7		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	80.1		0.985	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Work Order: 14-06-1828
 Project Name: Former Pechiney Cast Plate Facility /
 0106270030
 Received: 06/24/14

Attn: Linda Conlan

Page 4 of 6

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1170 (14-06-1828-9)						
Barium	135		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.422		0.246	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.3		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.4		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	18.8		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	3.29		0.493	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.5		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	44.2		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	61.1		0.985	mg/kg	EPA 6010B	EPA 3050B
#1171 (14-06-1828-10)						
Barium	133		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.403		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.8		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	22.3		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	13.5		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.9		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	41.8		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	84.0		0.990	mg/kg	EPA 6010B	EPA 3050B
#1172 (14-06-1828-11)						
Arsenic	1.06		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	66.6		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.383		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.6		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.65		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	19.7		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	35.1		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.6		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	75.0		0.990	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Work Order: 14-06-1828
 Project Name: Former Pechiney Cast Plate Facility /
 0106270030
 Received: 06/24/14

Attn: Linda Conlan

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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
#1173 (14-06-1828-12)						
Barium	116		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.369		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	15.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.72		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	50.4		1.00	mg/kg	EPA 6010B	EPA 3050B
#1174 (14-06-1828-13)						
Barium	139		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.439		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	18.8		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	2.18		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	44.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	60.9		1.00	mg/kg	EPA 6010B	EPA 3050B
#1175 (14-06-1828-14)						
Barium	137		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.413		0.246	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.9		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.4		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	26.4		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	8.86		0.493	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.271		0.246	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.3		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	43.0		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	76.8		0.985	mg/kg	EPA 6010B	EPA 3050B

Return to Contents

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-06-1828
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 06/24/14

Attn: Linda Conlan

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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
#1176 (14-06-1828-15)						
Barium	148		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.450		0.251	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.8		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	13.2		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	21.2		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	3.82		0.503	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.280		0.251	mg/kg	EPA 6010B	EPA 3050B
Nickel	23.6		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	46.0		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	76.3		1.01	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/24/14
 Work Order: 14-06-1828
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1162	14-06-1828-1-A	06/24/14 08:09	Solid	ICP 7300	06/24/14	06/25/14 13:45	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	ND	0.743	0.990	
Barium	116	0.495	0.990	
Beryllium	0.351	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	16.4	0.248	0.990	
Cobalt	10.1	0.248	0.990	
Copper	20.7	0.495	0.990	
Lead	15.8	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	19.8	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	35.9	0.248	0.990	
Zinc	95.7	0.990	0.990	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/24/14
 Work Order: 14-06-1828
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1163	14-06-1828-2-A	06/24/14 08:11	Solid	ICP 7300	06/24/14	06/25/14 13:46	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	ND	0.761	1.02	
Barium	123	0.508	1.02	
Beryllium	0.391	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	17.7	0.254	1.02	
Cobalt	11.3	0.254	1.02	
Copper	16.3	0.508	1.02	
Lead	2.86	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	12.2	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	40.8	0.254	1.02	
Zinc	55.3	1.02	1.02	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/24/14
 Work Order: 14-06-1828
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1164	14-06-1828-3-A	06/24/14 08:14	Solid	ICP 7300	06/24/14	06/25/14 13:47	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.721	0.962	
Arsenic	0.796	0.721	0.962	
Barium	109	0.481	0.962	
Beryllium	0.293	0.240	0.962	
Cadmium	ND	0.481	0.962	
Chromium	16.3	0.240	0.962	
Cobalt	9.31	0.240	0.962	
Copper	36.3	0.481	0.962	
Lead	48.2	0.481	0.962	
Molybdenum	ND	0.240	0.962	
Nickel	19.5	0.240	0.962	
Selenium	ND	0.721	0.962	
Silver	ND	0.240	0.962	
Thallium	ND	0.721	0.962	
Vanadium	31.5	0.240	0.962	
Zinc	129	0.962	0.962	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1165	14-06-1828-4-A	06/24/14 08:16	Solid	ICP 7300	06/24/14	06/25/14 13:48	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	1.95	0.758	1.01	
Barium	158	0.505	1.01	
Beryllium	0.341	0.253	1.01	
Cadmium	1.92	0.505	1.01	
Chromium	22.1	0.253	1.01	
Cobalt	11.5	0.253	1.01	
Copper	37.0	0.505	1.01	
Lead	45.8	0.505	1.01	
Molybdenum	0.378	0.253	1.01	
Nickel	28.4	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	35.6	0.253	1.01	
Zinc	771	1.01	1.01	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/24/14
 Work Order: 14-06-1828
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1166	14-06-1828-5-A	06/24/14 08:18	Solid	ICP 7300	06/24/14	06/25/14 13:49	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	2.00	0.761	1.02	
Barium	125	0.508	1.02	
Beryllium	0.324	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	23.1	0.254	1.02	
Cobalt	10.6	0.254	1.02	
Copper	52.9	0.508	1.02	
Lead	94.5	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	44.9	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	33.2	0.254	1.02	
Zinc	198	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1167	14-06-1828-6-A	06/24/14 08:20	Solid	ICP 7300	06/24/14	06/25/14 13:51	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	3.87	0.750	1.00	
Barium	130	0.500	1.00	
Beryllium	0.387	0.250	1.00	
Cadmium	0.623	0.500	1.00	
Chromium	20.8	0.250	1.00	
Cobalt	11.9	0.250	1.00	
Copper	35.4	0.500	1.00	
Lead	18.3	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	39.5	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	39.4	0.250	1.00	
Zinc	240	1.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/24/14
 Work Order: 14-06-1828
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1168	14-06-1828-7-A	06/24/14 08:23	Solid	ICP 7300	06/24/14	06/25/14 13:52	140624L06

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.773	1.03	
Arsenic	ND	0.773	1.03	
Barium	141	0.515	1.03	
Beryllium	0.452	0.258	1.03	
Cadmium	ND	0.515	1.03	
Chromium	20.0	0.258	1.03	
Cobalt	12.7	0.258	1.03	
Copper	19.5	0.515	1.03	
Lead	2.19	0.515	1.03	
Molybdenum	ND	0.258	1.03	
Nickel	14.1	0.258	1.03	
Selenium	ND	0.773	1.03	
Silver	ND	0.258	1.03	
Thallium	ND	0.773	1.03	
Vanadium	45.0	0.258	1.03	
Zinc	60.6	1.03	1.03	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/24/14
 Work Order: 14-06-1828
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1169	14-06-1828-8-A	06/24/14 08:25	Solid	ICP 7300	06/24/14	06/25/14 13:53	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	ND	0.739	0.985	
Barium	140	0.493	0.985	
Beryllium	0.422	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	21.9	0.246	0.985	
Cobalt	12.6	0.246	0.985	
Copper	26.2	0.493	0.985	
Lead	13.0	0.493	0.985	
Molybdenum	0.269	0.246	0.985	
Nickel	24.2	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	43.7	0.246	0.985	
Zinc	80.1	0.985	0.985	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1170	14-06-1828-9-A	06/24/14 08:27	Solid	ICP 7300	06/24/14	06/25/14 13:59	140624L06

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.739	0.985	
Arsenic	ND	0.739	0.985	
Barium	135	0.493	0.985	
Beryllium	0.422	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	19.3	0.246	0.985	
Cobalt	12.4	0.246	0.985	
Copper	18.8	0.493	0.985	
Lead	3.29	0.493	0.985	
Molybdenum	ND	0.246	0.985	
Nickel	14.5	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	44.2	0.246	0.985	
Zinc	61.1	0.985	0.985	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1171	14-06-1828-10-A	06/24/14 08:30	Solid	ICP 7300	06/24/14	06/25/14 14:00	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	ND	0.743	0.990	
Barium	133	0.495	0.990	
Beryllium	0.403	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	19.8	0.248	0.990	
Cobalt	12.1	0.248	0.990	
Copper	22.3	0.495	0.990	
Lead	13.5	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	14.9	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	41.8	0.248	0.990	
Zinc	84.0	0.990	0.990	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1172	14-06-1828-11-A	06/24/14 08:34	Solid	ICP 7300	06/24/14	06/25/14 14:02	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	1.06	0.743	0.990	
Barium	66.6	0.495	0.990	
Beryllium	0.383	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	17.6	0.248	0.990	
Cobalt	9.65	0.248	0.990	
Copper	19.7	0.495	0.990	
Lead	35.1	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	14.1	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	33.6	0.248	0.990	
Zinc	75.0	0.990	0.990	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1173	14-06-1828-12-A	06/24/14 08:38	Solid	ICP 7300	06/24/14	06/25/14 14:03	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	116	0.500	1.00	
Beryllium	0.369	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	16.8	0.250	1.00	
Cobalt	10.8	0.250	1.00	
Copper	15.0	0.500	1.00	
Lead	1.72	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	11.6	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	38.5	0.250	1.00	
Zinc	50.4	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1174	14-06-1828-13-A	06/24/14 08:43	Solid	ICP 7300	06/24/14	06/25/14 14:04	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	139	0.500	1.00	
Beryllium	0.439	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	20.0	0.250	1.00	
Cobalt	12.8	0.250	1.00	
Copper	18.8	0.500	1.00	
Lead	2.18	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	14.0	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	44.3	0.250	1.00	
Zinc	60.9	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/24/14
 Work Order: 14-06-1828
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1175	14-06-1828-14-A	06/24/14 08:46	Solid	ICP 7300	06/24/14	06/25/14 14:05	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	ND	0.739	0.985	
Barium	137	0.493	0.985	
Beryllium	0.413	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	19.9	0.246	0.985	
Cobalt	12.4	0.246	0.985	
Copper	26.4	0.493	0.985	
Lead	8.86	0.493	0.985	
Molybdenum	0.271	0.246	0.985	
Nickel	14.3	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	43.0	0.246	0.985	
Zinc	76.8	0.985	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1176	14-06-1828-15-A	06/24/14 08:49	Solid	ICP 7300	06/24/14	06/25/14 14:06	140624L06

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	ND	0.754	1.01	
Barium	148	0.503	1.01	
Beryllium	0.450	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	20.8	0.251	1.01	
Cobalt	13.2	0.251	1.01	
Copper	21.2	0.503	1.01	
Lead	3.82	0.503	1.01	
Molybdenum	0.280	0.251	1.01	
Nickel	23.6	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	46.0	0.251	1.01	
Zinc	76.3	1.01	1.01	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18526	N/A	Solid	ICP 7300	06/24/14	06/25/14 13:00	140624L06

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/24/14
 Work Order: 14-06-1828
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1162	14-06-1828-1-A	06/24/14 08:09	Solid	Mercury 04	06/24/14	06/24/14 20:55	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0877	1.00			
#1163	14-06-1828-2-A	06/24/14 08:11	Solid	Mercury 04	06/24/14	06/24/14 21:02	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			
#1164	14-06-1828-3-A	06/24/14 08:14	Solid	Mercury 04	06/24/14	06/24/14 21:04	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.117	0.0847	1.00			
#1165	14-06-1828-4-A	06/24/14 08:16	Solid	Mercury 04	06/24/14	06/24/14 21:06	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.128	0.0806	1.00			
#1166	14-06-1828-5-A	06/24/14 08:18	Solid	Mercury 04	06/24/14	06/24/14 21:08	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.125	0.0820	1.00			
#1167	14-06-1828-6-A	06/24/14 08:20	Solid	Mercury 04	06/24/14	06/24/14 21:11	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.231	0.0862	1.00			
#1168	14-06-1828-7-A	06/24/14 08:23	Solid	Mercury 04	06/24/14	06/24/14 21:13	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0862	1.00			
#1169	14-06-1828-8-A	06/24/14 08:25	Solid	Mercury 04	06/24/14	06/24/14 21:15	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 06/24/14
 Work Order: 14-06-1828
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1170	14-06-1828-9-A	06/24/14 08:27	Solid	Mercury 04	06/24/14	06/24/14 21:17	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0781	1.00			
#1171	14-06-1828-10-A	06/24/14 08:30	Solid	Mercury 04	06/24/14	06/24/14 21:20	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			
#1172	14-06-1828-11-A	06/24/14 08:34	Solid	Mercury 04	06/24/14	06/24/14 21:22	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0877	1.00			
#1173	14-06-1828-12-A	06/24/14 08:38	Solid	Mercury 04	06/24/14	06/24/14 21:29	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0806	1.00			
#1174	14-06-1828-13-A	06/24/14 08:43	Solid	Mercury 04	06/24/14	06/24/14 20:48	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
#1175	14-06-1828-14-A	06/24/14 08:46	Solid	Mercury 04	06/24/14	06/24/14 21:31	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0847	1.00			
#1176	14-06-1828-15-A	06/24/14 08:49	Solid	Mercury 04	06/24/14	06/24/14 21:33	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			
Method Blank	099-16-272-335	N/A	Solid	Mercury 04	06/24/14	06/24/14 20:40	140624L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
#1174	Sample	Solid	ICP 7300	06/24/14	06/25/14 14:04	140624S06				
#1174	Matrix Spike	Solid	ICP 7300	06/24/14	06/25/14 13:43	140624S06				
#1174	Matrix Spike Duplicate	Solid	ICP 7300	06/24/14	06/25/14 13:44	140624S06				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	8.733	35	8.348	33	50-115	5	0-20	3
Arsenic	ND	25.00	25.02	100	24.98	100	75-125	0	0-20	
Barium	138.6	25.00	167.2	4X	165.1	4X	75-125	4X	0-20	Q
Beryllium	0.4386	25.00	26.93	106	26.29	103	75-125	2	0-20	
Cadmium	ND	25.00	25.22	101	24.74	99	75-125	2	0-20	
Chromium	19.97	25.00	45.41	102	44.81	99	75-125	1	0-20	
Cobalt	12.79	25.00	38.46	103	38.17	102	75-125	1	0-20	
Copper	18.78	25.00	45.36	106	45.17	106	75-125	0	0-20	
Lead	2.183	25.00	27.01	99	26.96	99	75-125	0	0-20	
Molybdenum	ND	25.00	24.34	97	24.49	98	75-125	1	0-20	
Nickel	14.03	25.00	38.75	99	38.87	99	75-125	0	0-20	
Selenium	ND	25.00	19.72	79	20.09	80	75-125	2	0-20	
Silver	ND	12.50	12.77	102	12.62	101	75-125	1	0-20	
Thallium	ND	25.00	19.14	77	18.11	72	75-125	5	0-20	3
Vanadium	44.33	25.00	69.95	102	68.86	98	75-125	2	0-20	
Zinc	60.87	25.00	86.37	102	84.73	95	75-125	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1174	Sample	Solid	Mercury 04	06/24/14	06/24/14 20:48	140624S06
#1174	Matrix Spike	Solid	Mercury 04	06/24/14	06/24/14 20:51	140624S06
#1174	Matrix Spike Duplicate	Solid	Mercury 04	06/24/14	06/24/14 20:53	140624S06

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.8152	98	0.8672	104	71-137	6	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18526	LCS	Solid	ICP 7300	06/24/14	06/25/14 13:09	140624L06
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	25.68	103	80-120	73-127	
Arsenic	25.00	24.12	96	80-120	73-127	
Barium	25.00	24.79	99	80-120	73-127	
Beryllium	25.00	24.60	98	80-120	73-127	
Cadmium	25.00	26.43	106	80-120	73-127	
Chromium	25.00	24.83	99	80-120	73-127	
Cobalt	25.00	28.11	112	80-120	73-127	
Copper	25.00	25.96	104	80-120	73-127	
Lead	25.00	26.71	107	80-120	73-127	
Molybdenum	25.00	25.71	103	80-120	73-127	
Nickel	25.00	26.72	107	80-120	73-127	
Selenium	25.00	23.51	94	80-120	73-127	
Silver	12.50	12.27	98	80-120	73-127	
Thallium	25.00	27.19	109	80-120	73-127	
Vanadium	25.00	24.03	96	80-120	73-127	
Zinc	25.00	26.77	107	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 06/24/14
Work Order: 14-06-1828
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-335	LCS	Solid	Mercury 04	06/24/14	06/24/14 20:46	140624L06

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.8275	99	85-121	

Sample Analysis Summary Report

Work Order: 14-06-1828

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 04	1


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Glossary of Terms and Qualifiers

Work Order: 14-06-1828

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEL

DATE: 06/24/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.4 °C - 0.3 °C (CF) = 3.1 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by:)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: S13

CUSTODY SEALS INTACT:

☐ Cooler ☐ ☐ No (Not Intact) ☒ Not Present ☐ N/A

Checked by: S13

☐ Sample ☐ ☐ No (Not Intact) ☒ Not Present

Checked by: S13

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ EnCores® ☐ TerraCores® ☐

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBz₂na ☐ 100PJ ☐ 100PJna₂ ☐ ☐ ☐

Air: ☐ Tedlar® ☐ Canister Other: ☐ Trip Blank Lot#: Labeled/Checked by: S13

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: S13

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure z₂na: ZnAc₂+NaOH f: Filtered Scanned by: S13



Calscience



WORK ORDER NUMBER: 14-07-0556

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 07/14/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 14-07-0556

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Work Order Narrative

Work Order: 14-07-0556Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/09/14. They were assigned to Work Order 14-07-0556.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: AMEC Environment & Infrastructure	Work Order: 14-07-0556
121 Innovation Drive, Suite 200	Project Name: Former Pechiney Cast Plate Facility / 0106270030
Irvine, CA 92617-3094	PO Number:
	Date/Time Received: 07/09/14 17:30
	Number of Containers: 14
Attn: Linda Conlan	

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
925-V-R/R-SS-001	14-07-0556-1	07/09/14 08:23	1	Solid
925-V-R/R-SS-002	14-07-0556-2	07/09/14 08:25	1	Solid
925-V-R/R-SS-003	14-07-0556-3	07/09/14 08:27	1	Solid
925-V-R/R-SS-004	14-07-0556-4	07/09/14 08:31	1	Solid
925-V-R/R-SS-005	14-07-0556-5	07/09/14 08:35	1	Solid
925-V-R/R-SS-006	14-07-0556-6	07/09/14 08:36	1	Solid
925-V-R/R-SS-007	14-07-0556-7	07/09/14 08:37	1	Solid
W-83	14-07-0556-8	07/09/14 10:59	1	Solid
W-84	14-07-0556-9	07/09/14 11:00	1	Solid
W-85	14-07-0556-10	07/09/14 11:01	1	Solid
W-86	14-07-0556-11	07/09/14 11:08	1	Solid
W-87	14-07-0556-12	07/09/14 11:09	1	Solid
W-88	14-07-0556-13	07/09/14 11:10	1	Solid
W-89	14-07-0556-14	07/09/14 11:11	1	Solid

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-07-0556
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 07/09/14

Attn: Linda Conlan

Page 1 of 4

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
925-V-R/R-SS-001 (14-07-0556-1)						
Arsenic	1.14		0.769	mg/kg	EPA 6010B	EPA 3050B
Barium	143		0.513	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.387		0.256	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.1		0.256	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.5		0.256	mg/kg	EPA 6010B	EPA 3050B
Copper	17.8		0.513	mg/kg	EPA 6010B	EPA 3050B
Lead	2.00		0.513	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.2		0.256	mg/kg	EPA 6010B	EPA 3050B
Vanadium	40.6		0.256	mg/kg	EPA 6010B	EPA 3050B
Zinc	58.5		1.03	mg/kg	EPA 6010B	EPA 3050B
925-V-R/R-SS-002 (14-07-0556-2)						
Barium	125		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.368		0.246	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.6		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.3		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	15.9		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	2.03		0.493	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.5		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.5		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	52.4		0.985	mg/kg	EPA 6010B	EPA 3050B
925-V-R/R-SS-003 (14-07-0556-3)						
Barium	117		0.483	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.340		0.242	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.1		0.242	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.7		0.242	mg/kg	EPA 6010B	EPA 3050B
Copper	15.0		0.483	mg/kg	EPA 6010B	EPA 3050B
Lead	2.91		0.483	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.3		0.242	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.5		0.242	mg/kg	EPA 6010B	EPA 3050B
Zinc	50.8		0.966	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Work Order: 14-07-0556
 Project Name: Former Pechiney Cast Plate Facility /
 0106270030
 Received: 07/09/14

Attn: Linda Conlan

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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
925-V-R/R-SS-004 (14-07-0556-4)						
Arsenic	5.08		0.728	mg/kg	EPA 6010B	EPA 3050B
Barium	151		0.485	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.481		0.243	mg/kg	EPA 6010B	EPA 3050B
Chromium	46.4		0.243	mg/kg	EPA 6010B	EPA 3050B
Cobalt	31.7		0.243	mg/kg	EPA 6010B	EPA 3050B
Copper	116		0.485	mg/kg	EPA 6010B	EPA 3050B
Lead	90.3		0.485	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.589		0.243	mg/kg	EPA 6010B	EPA 3050B
Nickel	45.3		0.243	mg/kg	EPA 6010B	EPA 3050B
Vanadium	39.7		0.243	mg/kg	EPA 6010B	EPA 3050B
Zinc	237		0.971	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.171		0.0833	mg/kg	EPA 7471A	EPA 7471A Total
C19-C20	6.0		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	10		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	11		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	23		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	29		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	18		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	13		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	120		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1248	530		50	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	110		50	ug/kg	EPA 8082	EPA 3540C
925-V-R/R-SS-005 (14-07-0556-5)						
Barium	123		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.376		0.238	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.3		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.5		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	16.6		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	2.06		0.476	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.0		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	40.2		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	49.8		0.952	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Work Order: 14-07-0556
 Project Name: Former Pechiney Cast Plate Facility /
 0106270030
 Received: 07/09/14

Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
925-V-R/R-SS-006 (14-07-0556-6)						
Barium	120		0.508	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.347		0.254	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.4		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.9		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	15.0		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	3.22		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.5		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	37.4		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	54.3		1.02	mg/kg	EPA 6010B	EPA 3050B
925-V-R/R-SS-007 (14-07-0556-7)						
Barium	113		0.510	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.336		0.255	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.3		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.6		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	17.4		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	6.45		0.510	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.299		0.255	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.7		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.8		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	54.0		1.02	mg/kg	EPA 6010B	EPA 3050B
C17-C18	34		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C19-C20	54		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	62		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	67		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	72		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	74		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	26		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	15		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	410		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
W-83 (14-07-0556-8)						
Arsenic	5.42		0.758	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	1000		250	ug/kg	EPA 8082	EPA 3540C
W-86 (14-07-0556-11)						
Arsenic	6.62		0.750	mg/kg	EPA 6010B	EPA 3050B
W-89 (14-07-0556-14)						
Arsenic	13.5		0.754	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	650		50	ug/kg	EPA 8082	EPA 3540C

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-07-0556
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 07/09/14

Attn: Linda Conlan

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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
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Subcontracted analyses, if any, are not included in this summary.


Return to Contents

* MDL is shown

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-001	14-07-0556-1-A	07/09/14 08:23	Solid	GC 46	07/09/14	07/09/14 20:06	140709B03

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	75	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-002	14-07-0556-2-A	07/09/14 08:25	Solid	GC 46	07/09/14	07/09/14 20:24	140709B03

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.1	1.00	
C7	ND	5.1	1.00	
C8	ND	5.1	1.00	
C9-C10	ND	5.1	1.00	
C11-C12	ND	5.1	1.00	
C13-C14	ND	5.1	1.00	
C15-C16	ND	5.1	1.00	
C17-C18	ND	5.1	1.00	
C19-C20	ND	5.1	1.00	
C21-C22	ND	5.1	1.00	
C23-C24	ND	5.1	1.00	
C25-C28	ND	5.1	1.00	
C29-C32	ND	5.1	1.00	
C33-C36	ND	5.1	1.00	
C37-C40	ND	5.1	1.00	
C41-C44	ND	5.1	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	70	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-003	14-07-0556-3-A	07/09/14 08:27	Solid	GC 46	07/09/14	07/09/14 20:40	140709B03

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 4 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-004	14-07-0556-4-A	07/09/14 08:31	Solid	GC 46	07/09/14	07/09/14 20:58	140709B03

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	6.0	5.0	1.00	
C21-C22	10	5.0	1.00	
C23-C24	11	5.0	1.00	
C25-C28	23	5.0	1.00	
C29-C32	29	5.0	1.00	
C33-C36	18	5.0	1.00	
C37-C40	13	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	120	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	67	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 5 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-005	14-07-0556-5-A	07/09/14 08:35	Solid	GC 46	07/09/14	07/09/14 21:16	140709B03

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-006	14-07-0556-6-A	07/09/14 08:36	Solid	GC 46	07/09/14	07/09/14 21:34	140709B03

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	83	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 07/09/14
 Work Order: 14-07-0556
 Preparation: EPA 3550B
 Method: EPA 8015B (M)
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-007	14-07-0556-7-A	07/09/14 08:37	Solid	GC 46	07/09/14	07/09/14 21:51	140709B03

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	34	5.0	1.00	
C19-C20	54	5.0	1.00	
C21-C22	62	5.0	1.00	
C23-C24	67	5.0	1.00	
C25-C28	72	5.0	1.00	
C29-C32	74	5.0	1.00	
C33-C36	26	5.0	1.00	
C37-C40	15	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	410	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	95	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-490-995	N/A	Solid	GC 46	07/09/14	07/09/14 13:52	140709B03

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	82	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 07/09/14
 Work Order: 14-07-0556
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-83	14-07-0556-8-A	07/09/14 10:59	Solid	ICP 7300	07/09/14	07/10/14 19:23	140709L03
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Arsenic		5.42		0.758	1.01		
W-84	14-07-0556-9-A	07/09/14 11:00	Solid	ICP 7300	07/09/14	07/10/14 19:24	140709L03
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Arsenic		ND		0.769	1.03		
W-85	14-07-0556-10-A	07/09/14 11:01	Solid	ICP 7300	07/09/14	07/10/14 19:25	140709L03
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Arsenic		ND		0.735	0.980		
W-86	14-07-0556-11-A	07/09/14 11:08	Solid	ICP 7300	07/09/14	07/10/14 19:26	140709L03
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Arsenic		6.62		0.750	1.00		
W-87	14-07-0556-12-A	07/09/14 11:09	Solid	ICP 7300	07/09/14	07/10/14 19:27	140709L03
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Arsenic		ND		0.746	0.995		
W-88	14-07-0556-13-A	07/09/14 11:10	Solid	ICP 7300	07/09/14	07/10/14 19:28	140709L03
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Arsenic		ND		0.735	0.980		
W-89	14-07-0556-14-A	07/09/14 11:11	Solid	ICP 7300	07/09/14	07/10/14 19:29	140709L03
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Arsenic		13.5		0.754	1.01		
Method Blank	097-01-002-18586	N/A	Solid	ICP 7300	07/09/14	07/10/14 18:17	140709L03
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Arsenic		ND		0.750	1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-001	14-07-0556-1-A	07/09/14 08:23	Solid	ICP 7300	07/09/14	07/10/14 19:11	140709L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.769	1.03	
Arsenic	1.14	0.769	1.03	
Barium	143	0.513	1.03	
Beryllium	0.387	0.256	1.03	
Cadmium	ND	0.513	1.03	
Chromium	18.1	0.256	1.03	
Cobalt	12.5	0.256	1.03	
Copper	17.8	0.513	1.03	
Lead	2.00	0.513	1.03	
Molybdenum	ND	0.256	1.03	
Nickel	13.2	0.256	1.03	
Selenium	ND	0.769	1.03	
Silver	ND	0.256	1.03	
Thallium	ND	0.769	1.03	
Vanadium	40.6	0.256	1.03	
Zinc	58.5	1.03	1.03	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-002	14-07-0556-2-A	07/09/14 08:25	Solid	ICP 7300	07/09/14	07/10/14 19:12	140709L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	ND	0.739	0.985	
Barium	125	0.493	0.985	
Beryllium	0.368	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	16.6	0.246	0.985	
Cobalt	11.3	0.246	0.985	
Copper	15.9	0.493	0.985	
Lead	2.03	0.493	0.985	
Molybdenum	ND	0.246	0.985	
Nickel	11.5	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	38.5	0.246	0.985	
Zinc	52.4	0.985	0.985	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-003	14-07-0556-3-A	07/09/14 08:27	Solid	ICP 7300	07/09/14	07/10/14 19:13	140709L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.725	0.966	
Arsenic	ND	0.725	0.966	
Barium	117	0.483	0.966	
Beryllium	0.340	0.242	0.966	
Cadmium	ND	0.483	0.966	
Chromium	16.1	0.242	0.966	
Cobalt	10.7	0.242	0.966	
Copper	15.0	0.483	0.966	
Lead	2.91	0.483	0.966	
Molybdenum	ND	0.242	0.966	
Nickel	11.3	0.242	0.966	
Selenium	ND	0.725	0.966	
Silver	ND	0.242	0.966	
Thallium	ND	0.725	0.966	
Vanadium	35.5	0.242	0.966	
Zinc	50.8	0.966	0.966	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-004	14-07-0556-4-A	07/09/14 08:31	Solid	ICP 7300	07/09/14	07/10/14 19:15	140709L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.728	0.971	
Arsenic	5.08	0.728	0.971	
Barium	151	0.485	0.971	
Beryllium	0.481	0.243	0.971	
Cadmium	ND	0.485	0.971	
Chromium	46.4	0.243	0.971	
Cobalt	31.7	0.243	0.971	
Copper	116	0.485	0.971	
Lead	90.3	0.485	0.971	
Molybdenum	0.589	0.243	0.971	
Nickel	45.3	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	ND	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	39.7	0.243	0.971	
Zinc	237	0.971	0.971	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-005	14-07-0556-5-A	07/09/14 08:35	Solid	ICP 7300	07/09/14	07/10/14 19:16	140709L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	ND	0.714	0.952	
Barium	123	0.476	0.952	
Beryllium	0.376	0.238	0.952	
Cadmium	ND	0.476	0.952	
Chromium	17.3	0.238	0.952	
Cobalt	11.5	0.238	0.952	
Copper	16.6	0.476	0.952	
Lead	2.06	0.476	0.952	
Molybdenum	ND	0.238	0.952	
Nickel	12.0	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	40.2	0.238	0.952	
Zinc	49.8	0.952	0.952	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-006	14-07-0556-6-A	07/09/14 08:36	Solid	ICP 7300	07/09/14	07/10/14 19:21	140709L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	ND	0.761	1.02	
Barium	120	0.508	1.02	
Beryllium	0.347	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	16.4	0.254	1.02	
Cobalt	10.9	0.254	1.02	
Copper	15.0	0.508	1.02	
Lead	3.22	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	11.5	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	37.4	0.254	1.02	
Zinc	54.3	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-007	14-07-0556-7-A	07/09/14 08:37	Solid	ICP 7300	07/09/14	07/10/14 19:22	140709L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	ND	0.765	1.02	
Barium	113	0.510	1.02	
Beryllium	0.336	0.255	1.02	
Cadmium	ND	0.510	1.02	
Chromium	16.3	0.255	1.02	
Cobalt	10.6	0.255	1.02	
Copper	17.4	0.510	1.02	
Lead	6.45	0.510	1.02	
Molybdenum	0.299	0.255	1.02	
Nickel	12.7	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	35.8	0.255	1.02	
Zinc	54.0	1.02	1.02	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 07/09/14
 Work Order: 14-07-0556
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18586	N/A	Solid	ICP 7300	07/09/14	07/10/14 18:17	140709L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-001	14-07-0556-1-A	07/09/14 08:23	Solid	Mercury 05	07/09/14	07/09/14 21:29	140709L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
925-V-R/R-SS-002	14-07-0556-2-A	07/09/14 08:25	Solid	Mercury 05	07/09/14	07/09/14 21:32	140709L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			
925-V-R/R-SS-003	14-07-0556-3-A	07/09/14 08:27	Solid	Mercury 05	07/09/14	07/09/14 21:34	140709L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			
925-V-R/R-SS-004	14-07-0556-4-A	07/09/14 08:31	Solid	Mercury 05	07/09/14	07/09/14 21:36	140709L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.171	0.0833	1.00			
925-V-R/R-SS-005	14-07-0556-5-A	07/09/14 08:35	Solid	Mercury 05	07/09/14	07/09/14 21:38	140709L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0794	1.00			
925-V-R/R-SS-006	14-07-0556-6-A	07/09/14 08:36	Solid	Mercury 05	07/09/14	07/09/14 21:41	140709L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0820	1.00			
925-V-R/R-SS-007	14-07-0556-7-A	07/09/14 08:37	Solid	Mercury 05	07/09/14	07/09/14 21:43	140709L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0862	1.00			
Method Blank	099-16-272-376	N/A	Solid	Mercury 05	07/09/14	07/09/14 21:05	140709L09
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-001	14-07-0556-1-A	07/09/14 08:23	Solid	GC 66	07/09/14	07/11/14 10:19	140709L18

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	60-125	
2,4,5,6-Tetrachloro-m-Xylene	103	50-130	

925-V-R/R-SS-002	14-07-0556-2-A	07/09/14 08:25	Solid	GC 66	07/09/14	07/11/14 10:37	140709L18
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	60-125	
2,4,5,6-Tetrachloro-m-Xylene	99	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-003	14-07-0556-3-A	07/09/14 08:27	Solid	GC 66	07/09/14	07/11/14 10:55	140709L18

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	101	60-125	
2,4,5,6-Tetrachloro-m-Xylene	91	50-130	

925-V-R/R-SS-004	14-07-0556-4-A	07/09/14 08:31	Solid	GC 66	07/09/14	07/11/14 11:13	140709L18
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	530	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	110	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	60-125	
2,4,5,6-Tetrachloro-m-Xylene	87	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-005	14-07-0556-5-A	07/09/14 08:35	Solid	GC 66	07/09/14	07/11/14 11:31	140709L18

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	107	60-125	
2,4,5,6-Tetrachloro-m-Xylene	107	50-130	

925-V-R/R-SS-006	14-07-0556-6-A	07/09/14 08:36	Solid	GC 66	07/09/14	07/11/14 11:48	140709L18
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	111	60-125	
2,4,5,6-Tetrachloro-m-Xylene	107	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-007	14-07-0556-7-A	07/09/14 08:37	Solid	GC 66	07/09/14	07/11/14 12:06	140709L18

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	51	1.00	
Aroclor-1221	ND	51	1.00	
Aroclor-1232	ND	51	1.00	
Aroclor-1242	ND	51	1.00	
Aroclor-1248	ND	51	1.00	
Aroclor-1254	ND	51	1.00	
Aroclor-1260	ND	51	1.00	
Aroclor-1262	ND	51	1.00	
Aroclor-1268	ND	51	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	106	60-125	
2,4,5,6-Tetrachloro-m-Xylene	104	50-130	

W-83	14-07-0556-8-A	07/09/14 10:59	Solid	GC 66	07/09/14	07/12/14 14:46	140709L18
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	250	5.00	
Aroclor-1221	ND	250	5.00	
Aroclor-1232	ND	250	5.00	
Aroclor-1242	ND	250	5.00	
Aroclor-1248	1000	250	5.00	
Aroclor-1254	ND	250	5.00	
Aroclor-1260	ND	250	5.00	
Aroclor-1262	ND	250	5.00	
Aroclor-1268	ND	250	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	60-125	
2,4,5,6-Tetrachloro-m-Xylene	86	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-84	14-07-0556-9-A	07/09/14 11:00	Solid	GC 66	07/09/14	07/11/14 12:42	140709L18

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	102	60-125	
2,4,5,6-Tetrachloro-m-Xylene	99	50-130	

W-85	14-07-0556-10-A	07/09/14 11:01	Solid	GC 66	07/09/14	07/11/14 16:46	140709L18
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	99	60-125	
2,4,5,6-Tetrachloro-m-Xylene	117	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-86	14-07-0556-11-A	07/09/14 11:08	Solid	GC 66	07/09/14	07/11/14 17:04	140709L18

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	97	60-125	
2,4,5,6-Tetrachloro-m-Xylene	108	50-130	

W-87	14-07-0556-12-A	07/09/14 11:09	Solid	GC 66	07/09/14	07/11/14 17:21	140709L18
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	96	60-125	
2,4,5,6-Tetrachloro-m-Xylene	107	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-88	14-07-0556-13-A	07/09/14 11:10	Solid	GC 66	07/09/14	07/11/14 17:44	140709L18

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	96	60-125	
2,4,5,6-Tetrachloro-m-Xylene	98	50-130	

W-89	14-07-0556-14-A	07/09/14 11:11	Solid	GC 66	07/09/14	07/11/14 18:02	140709L18
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	650	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	106	60-125	
2,4,5,6-Tetrachloro-m-Xylene	102	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 07/09/14
 Work Order: 14-07-0556
 Preparation: EPA 3540C
 Method: EPA 8082
 Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-003-283	N/A	Solid	GC 66	07/09/14	07/11/14 09:44	140709L18

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	60-125	
2,4,5,6-Tetrachloro-m-Xylene	96	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-07-0461-1	Sample	Solid	GC 46	07/09/14	07/09/14 15:20	140709S03
14-07-0461-1	Matrix Spike	Solid	GC 46	07/09/14	07/09/14 14:45	140709S03
14-07-0461-1	Matrix Spike Duplicate	Solid	GC 46	07/09/14	07/09/14 15:03	140709S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	70.01	400.0	472.5	101	473.7	101	64-130	0	0-15	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
W-86	Sample	Solid	ICP 7300	07/09/14	07/10/14 19:26	140709S03				
W-86	Matrix Spike	Solid	ICP 7300	07/09/14	07/10/14 19:09	140709S03				
W-86	Matrix Spike Duplicate	Solid	ICP 7300	07/09/14	07/10/14 19:10	140709S03				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	11.65	47	12.09	48	50-115	4	0-20	3
Arsenic	6.616	25.00	29.89	93	30.82	97	75-125	3	0-20	
Barium	112.2	25.00	134.5	4X	139.2	4X	75-125	4X	0-20	Q
Beryllium	0.3374	25.00	25.40	100	25.96	103	75-125	2	0-20	
Cadmium	ND	25.00	24.88	100	25.13	101	75-125	1	0-20	
Chromium	14.77	25.00	40.24	102	40.66	104	75-125	1	0-20	
Cobalt	10.40	25.00	36.43	104	36.30	104	75-125	0	0-20	
Copper	13.86	25.00	40.24	106	41.88	112	75-125	4	0-20	
Lead	2.849	25.00	29.16	105	29.93	108	75-125	3	0-20	
Molybdenum	ND	25.00	25.09	100	25.03	100	75-125	0	0-20	
Nickel	10.71	25.00	35.66	100	35.75	100	75-125	0	0-20	
Selenium	ND	25.00	22.65	91	22.57	90	75-125	0	0-20	
Silver	ND	12.50	14.59	117	14.70	118	75-125	1	0-20	
Thallium	ND	25.00	18.67	75	18.56	74	75-125	1	0-20	3
Vanadium	35.58	25.00	60.27	99	61.06	102	75-125	1	0-20	
Zinc	55.58	25.00	76.46	84	81.11	102	75-125	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-07-0371-1	Sample	Sediment	Mercury 05	07/09/14	07/09/14 21:09	140709S09
14-07-0371-1	Matrix Spike	Sediment	Mercury 05	07/09/14	07/09/14 21:11	140709S09
14-07-0371-1	Matrix Spike Duplicate	Sediment	Mercury 05	07/09/14	07/09/14 21:14	140709S09

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.8940	107	0.8750	105	76-136	2	0-16	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
W-89	Sample	Solid	GC 66	07/09/14	07/11/14 18:02	140709S18
W-89	Matrix Spike	Solid	GC 66	07/09/14	07/11/14 18:20	140709S18
W-89	Matrix Spike Duplicate	Solid	GC 66	07/09/14	07/11/14 18:38	140709S18

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	175.0	175	186.5	187	50-135	6	0-25	3
Aroclor-1260	ND	100.0	171.0	171	223.6	224	50-135	27	0-25	3,4

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-995	LCS	Solid	GC 46	07/09/14	07/09/14 14:09	140709B03
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	450.5	113	75-123	

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18586	LCS	Solid	ICP 7300	07/09/14	07/10/14 18:24	140709L03
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Antimony	25.00	28.52	114	80-120	73-127	
Arsenic	25.00	24.80	99	80-120	73-127	
Barium	25.00	26.43	106	80-120	73-127	
Beryllium	25.00	25.39	102	80-120	73-127	
Cadmium	25.00	26.45	106	80-120	73-127	
Chromium	25.00	26.98	108	80-120	73-127	
Cobalt	25.00	27.91	112	80-120	73-127	
Copper	25.00	25.89	104	80-120	73-127	
Lead	25.00	26.54	106	80-120	73-127	
Molybdenum	25.00	26.09	104	80-120	73-127	
Nickel	25.00	27.95	112	80-120	73-127	
Selenium	25.00	23.08	92	80-120	73-127	
Silver	12.50	15.12	121	80-120	73-127	ME
Thallium	25.00	26.60	106	80-120	73-127	
Vanadium	25.00	26.05	104	80-120	73-127	
Zinc	25.00	25.91	104	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-376	LCS	Solid	Mercury 05	07/09/14	07/09/14 21:07	140709L09

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.7988	96	85-121	

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/09/14
Work Order: 14-07-0556
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-02-003-283	LCS	Solid	GC 66	07/09/14	07/11/14 10:01	140709L18
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	82.95	83	50-135	
Aroclor-1260		100.0	98.80	99	60-130	

Sample Analysis Summary Report

Work Order: 14-07-0556

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8015B (M)	EPA 3550B	847	GC 46	1
EPA 8082	EPA 3540C	842	GC 66	1


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Glossary of Terms and Qualifiers

Work Order: 14-07-0556

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CHAIN-OF-CUSTODY RECORD

NB 31655

PROJECT NAME: Former Pechney Cast Plate Facility		DATE: 7-9-14		PAGE 1 OF 1	
PROJECT NUMBER: 0106270030		CLIENT INFORMATION: AMEC		REPORTING REQUIREMENTS: 14-07-0556	
RESULTS TO: Linda Conlan		LABORATORY NAME: Cal Science			
TURNAROUND TIME: 48 HRS		LABORATORY ADDRESS:			
SAMPLE SHIPMENT METHOD: lab courier		LABORATORY CONTACT: Steve Nowak		GEOTRACKER REQUIRED: YES	
		LABORATORY PHONE NUMBER:		SITE SPECIFIC GLOBAL ID NO. NO	

SAMPLERS (SIGNATURE):			ANALYSES										CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
DATE	TIME	SAMPLE NUMBER	EPA 8082	Title 02 Metals	EPA 8015	Arsenic														
7-9-14	0823	925-V-R/R-SS-001	X	X	X															
	0825	925-V-R/R-SS-002	X	X	X															
	0827	925-V-R/R-SS-003	X	X	X															
	0831	925-V-R/R-SS-004	X	X	X															
	0835	925-V-R/R-SS-005	X	X	X															
	0836	925-V-R/R-SS-006	X	X	X															
	0837	925-V-R/R-SS-007	X	X	X															
	1059	W-83	X			X														
	1100	W-84	X			X														
	1101	W-85	X			X														
	1108	W-86	X			X														
	1109	W-87	X			X														
	1110	W-88	X			X														
	1111	W-89	X			X														
			TOTAL NUMBER OF CONTAINERS: 94																	
			SAMPLING COMMENTS:																	

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE: <i>[Signature]</i>	7/9/14	1435	SIGNATURE: <i>[Signature]</i>	7/9/14	1435
PRINTED NAME: Steve Nowak			PRINTED NAME: Steve Nowak		
COMPANY: AMEC			COMPANY: AMEC		
SIGNATURE: <i>[Signature]</i>	7/9/14	1730	SIGNATURE: <i>[Signature]</i>	7/9/14	1730
PRINTED NAME: Steve Nowak			PRINTED NAME: Steve Nowak		
COMPANY: AMEC			COMPANY: AMEC		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		

121 Innovation Drive, Suite 200 Irvine, California 92617-3094 Tel 949.642.0245 Fax 949.642.4474		amec	
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Calscience

WORK ORDER #: 14-07-0556

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 07/9/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Temperature 2.7 °C - 0.3°C (CF) = 2.4 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 678

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____ ☐ No (Not Intact) ☒ Not Present ☐ N/A

Checked by: 678

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present

Checked by: 802

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s
☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: 802

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 659

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: 659



Calscience



WORK ORDER NUMBER: 14-07-0966

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 07/18/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 14-07-0966

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8	Chain-of-Custody/Sample Receipt Form.	20

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/15/14. They were assigned to Work Order 14-07-0966.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: AMEC Environment & Infrastructure	Work Order: 14-07-0966
121 Innovation Drive, Suite 200	Project Name: Former Pechiney Cast Plate / 0106270030
Irvine, CA 92617-3094	PO Number:
	Date/Time Received: 07/15/14 16:23
	Number of Containers: 4

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
722-IIA-P/S-SS-001	14-07-0966-1	07/15/14 08:00	1	Solid
#1247	14-07-0966-2	07/15/14 09:37	1	Solid
#1248	14-07-0966-3	07/15/14 09:39	1	Solid
#1249	14-07-0966-4	07/15/14 09:42	1	Solid

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-07-0966
Project Name: Former Pechiney Cast Plate / 0106270030
Received: 07/15/14

Attn: Linda Conlan

Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1247 (14-07-0966-2)						
Arsenic	0.760		0.746	mg/kg	EPA 6010B	EPA 3050B
Barium	315		0.498	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.364		0.249	mg/kg	EPA 6010B	EPA 3050B
Chromium	35.1		0.249	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.7		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	19.8		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	9.66		0.498	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.5		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	34.7		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	75.7		0.995	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.110		0.0862	mg/kg	EPA 7471A	EPA 7471A Total
#1248 (14-07-0966-3)						
Barium	137		0.498	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.396		0.249	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.6		0.249	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.8		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	18.9		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	5.25		0.498	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.0		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.2		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	69.3		0.995	mg/kg	EPA 6010B	EPA 3050B
#1249 (14-07-0966-4)						
Barium	143		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.387		0.251	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.5		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.7		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	21.7		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	13.3		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.4		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	37.6		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	78.7		1.01	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/15/14
Work Order: 14-07-0966
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1247	14-07-0966-2-A	07/15/14 09:37	Solid	ICP 7300	07/15/14	07/17/14 14:26	140715L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.746	0.995	
Arsenic	0.760	0.746	0.995	
Barium	315	0.498	0.995	
Beryllium	0.364	0.249	0.995	
Cadmium	ND	0.498	0.995	
Chromium	35.1	0.249	0.995	
Cobalt	10.7	0.249	0.995	
Copper	19.8	0.498	0.995	
Lead	9.66	0.498	0.995	
Molybdenum	ND	0.249	0.995	
Nickel	12.5	0.249	0.995	
Selenium	ND	0.746	0.995	
Silver	ND	0.249	0.995	
Thallium	ND	0.746	0.995	
Vanadium	34.7	0.249	0.995	
Zinc	75.7	0.995	0.995	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/15/14
Work Order: 14-07-0966
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1248	14-07-0966-3-A	07/15/14 09:39	Solid	ICP 7300	07/15/14	07/17/14 14:27	140715L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.746	0.995	
Arsenic	ND	0.746	0.995	
Barium	137	0.498	0.995	
Beryllium	0.396	0.249	0.995	
Cadmium	ND	0.498	0.995	
Chromium	18.6	0.249	0.995	
Cobalt	11.8	0.249	0.995	
Copper	18.9	0.498	0.995	
Lead	5.25	0.498	0.995	
Molybdenum	ND	0.249	0.995	
Nickel	13.0	0.249	0.995	
Selenium	ND	0.746	0.995	
Silver	ND	0.249	0.995	
Thallium	ND	0.746	0.995	
Vanadium	38.2	0.249	0.995	
Zinc	69.3	0.995	0.995	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 07/15/14
 Work Order: 14-07-0966
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1249	14-07-0966-4-A	07/15/14 09:42	Solid	ICP 7300	07/15/14	07/17/14 14:28	140715L03

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	ND	0.754	1.01	
Barium	143	0.503	1.01	
Beryllium	0.387	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	17.5	0.251	1.01	
Cobalt	11.7	0.251	1.01	
Copper	21.7	0.503	1.01	
Lead	13.3	0.503	1.01	
Molybdenum	ND	0.251	1.01	
Nickel	13.4	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	37.6	0.251	1.01	
Zinc	78.7	1.01	1.01	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/15/14
Work Order: 14-07-0966
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18603	N/A	Solid	ICP 7300	07/15/14	07/16/14 13:09	140715L03

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/15/14
Work Order: 14-07-0966
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1247	14-07-0966-2-A	07/15/14 09:37	Solid	Mercury 05	07/16/14	07/16/14 19:07	140716L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.110	0.0862	1.00			
#1248	14-07-0966-3-A	07/15/14 09:39	Solid	Mercury 05	07/16/14	07/16/14 19:10	140716L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0847	1.00			
#1249	14-07-0966-4-A	07/15/14 09:42	Solid	Mercury 05	07/16/14	07/16/14 19:01	140716L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
Method Blank	099-16-272-388	N/A	Solid	Mercury 05	07/16/14	07/16/14 18:56	140716L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/15/14
Work Order: 14-07-0966
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate / 0106270030

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
722-IIA-P/S-SS-001	14-07-0966-1-A	07/15/14 08:00	Solid	GC 58	07/15/14	07/17/14 12:17	140715L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	107	60-125	
2,4,5,6-Tetrachloro-m-Xylene	104	50-130	

Method Blank	099-02-003-285	N/A	Solid	GC 58	07/15/14	07/17/14 11:41	140715L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	60-125	
2,4,5,6-Tetrachloro-m-Xylene	108	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/15/14
Work Order: 14-07-0966
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-07-0755-17	Sample	Solid	ICP 7300	07/15/14	07/16/14 21:25	140715S03
14-07-0755-17	Matrix Spike	Solid	ICP 7300	07/15/14	07/16/14 12:50	140715S03
14-07-0755-17	Matrix Spike Duplicate	Solid	ICP 7300	07/15/14	07/16/14 12:51	140715S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	12.61	50	13.52	54	50-115	7	0-20	
Arsenic	2.248	25.00	28.36	104	28.51	105	75-125	1	0-20	
Barium	31.95	25.00	57.62	103	57.84	104	75-125	0	0-20	
Beryllium	ND	25.00	26.47	106	26.61	106	75-125	0	0-20	
Cadmium	ND	25.00	26.02	104	26.17	105	75-125	1	0-20	
Chromium	7.940	25.00	34.12	105	33.88	104	75-125	1	0-20	
Cobalt	3.303	25.00	30.83	110	30.59	109	75-125	1	0-20	
Copper	2.069	25.00	27.70	103	28.02	104	75-125	1	0-20	
Lead	0.9066	25.00	27.97	108	27.39	106	75-125	2	0-20	
Molybdenum	ND	25.00	26.05	104	25.74	103	75-125	1	0-20	
Nickel	5.780	25.00	32.24	106	32.07	105	75-125	1	0-20	
Selenium	ND	25.00	24.43	98	24.51	98	75-125	0	0-20	
Silver	ND	12.50	12.94	103	13.09	105	75-125	1	0-20	
Thallium	ND	25.00	24.13	97	24.27	97	75-125	1	0-20	
Vanadium	12.53	25.00	38.82	105	38.69	105	75-125	0	0-20	
Zinc	17.52	25.00	41.84	97	41.98	98	75-125	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/15/14

Work Order: 14-07-0966

Preparation: EPA 7471A Total

Method: EPA 7471A

Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1249	Sample	Solid	Mercury 05	07/16/14	07/16/14 19:01	140716S01
#1249	Matrix Spike	Solid	Mercury 05	07/16/14	07/16/14 19:03	140716S01
#1249	Matrix Spike Duplicate	Solid	Mercury 05	07/16/14	07/16/14 19:05	140716S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.9425	113	0.9389	112	71-137	0	0-14	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/15/14
Work Order: 14-07-0966
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
722-IIA-P/S-SS-001	Sample	Solid	GC 58	07/15/14	07/17/14 12:17	140715S16
722-IIA-P/S-SS-001	Matrix Spike	Solid	GC 58	07/15/14	07/17/14 12:35	140715S16
722-IIA-P/S-SS-001	Matrix Spike Duplicate	Solid	GC 58	07/15/14	07/17/14 13:11	140715S16

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	91.72	92	100.8	101	50-135	9	0-25	
Aroclor-1260	ND	100.0	98.94	99	101.1	101	50-135	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/15/14
Work Order: 14-07-0966
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18603	LCS	Solid	ICP 7300	07/15/14	07/16/14 13:19	140715L03
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Antimony	25.00	27.85	111	80-120	73-127	
Arsenic	25.00	25.65	103	80-120	73-127	
Barium	25.00	25.75	103	80-120	73-127	
Beryllium	25.00	24.79	99	80-120	73-127	
Cadmium	25.00	25.96	104	80-120	73-127	
Chromium	25.00	25.98	104	80-120	73-127	
Cobalt	25.00	27.96	112	80-120	73-127	
Copper	25.00	25.42	102	80-120	73-127	
Lead	25.00	27.14	109	80-120	73-127	
Molybdenum	25.00	26.54	106	80-120	73-127	
Nickel	25.00	27.08	108	80-120	73-127	
Selenium	25.00	24.21	97	80-120	73-127	
Silver	12.50	12.90	103	80-120	73-127	
Thallium	25.00	26.72	107	80-120	73-127	
Vanadium	25.00	25.25	101	80-120	73-127	
Zinc	25.00	26.02	104	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/15/14
Work Order: 14-07-0966
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-388	LCS	Solid	Mercury 05	07/16/14	07/16/14 18:58	140716L01

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.9352	112	85-121	

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 07/15/14
Work Order: 14-07-0966
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-02-003-285	LCS	Solid	GC 58	07/15/14	07/17/14 11:59	140715L16
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	113.3	113	50-135	
Aroclor-1260		100.0	98.28	98	60-130	

Sample Analysis Summary Report

Work Order: 14-07-0966

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8082	EPA 3540C	842	GC 58	1


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Glossary of Terms and Qualifiers

Work Order: 14-07-0966

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

PROJECT NAME: Former Pechiney Cast Plate Facility		CLIENT INFORMATION: AMEC		DATE: 7-15-14		PAGE 1 OF 1				
PROJECT NUMBER: 0106270030		LABORATORY NAME: CalScience		REPORTING REQUIREMENTS:						
RESULTS TO: Linda Conlan		LABORATORY ADDRESS:		14-07-0966						
TURNAROUND TIME: 48 HR		LABORATORY CONTACT: Steve Nowak		GEOTRACKER REQUIRED <input type="checkbox"/>						
SAMPLE SHIPMENT METHOD: lab courier		LABORATORY PHONE NUMBER:		SITE SPECIFIC GLOBAL ID NO.						
SAMPLERS (SIGNATURE): NumberlyChominsky		ANALYSES		CONTAINER TYPE AND SIZE						
DATE	TIME	SAMPLE NUMBER	EPA 8082	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
7-15-14	0800	722-PA-PS-SS-001	X				X		1	
↓	0937	#1247	X				X		1	
↓	0939	#1248	X				X		1	
↓	0942	#1249	X				X		1	
<div>RELINQUISHED BY: NumberlyChominsky AMEC 7/15/14 1200</div> <div>RECEIVED BY: Steve Nowak CalScience 7/15/14 1200</div> <div>SIGNATURE: Steve Nowak CalScience 7/15/14 1200</div> <div>PRINTED NAME: Steve Nowak CalScience 7/15/14 1200</div> <div>COMPANY: CalScience 7/15/14 1200</div> <div>SIGNATURE: Steve Nowak AMEC 7/15/14 1200</div> <div>PRINTED NAME: Steve Nowak AMEC 7/15/14 1200</div> <div>COMPANY: AMEC 7/15/14 1200</div> <div>SIGNATURE: Steve Nowak AMEC 7/15/14 1200</div> <div>PRINTED NAME: Steve Nowak AMEC 7/15/14 1200</div> <div>COMPANY: AMEC 7/15/14 1200</div>										

Calscience

WORK ORDER #: 14-07-0966

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 07/15/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.6 °C - 0.3 °C (CF) = 3.3 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by:)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: J03

CUSTODY SEALS INTACT:

☐ Cooler ☐ ☐ No (Not Intact) ☒ Not Present ☐ N/A Checked by: J03

☐ Sample ☐ ☐ No (Not Intact) ☒ Not Present Checked by: J04

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ ☐ ☒

Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ EnCores® ☐ TerraCores® ☐

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s
☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ ☐ ☐

Air: ☐ Tedlar® ☐ Canister Other: ☐ Trip Blank Lot#: Labeled/Checked by: J06

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: J03

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: J03



Calscience



WORK ORDER NUMBER: 14-08-0206

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate Facility /
0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 08/06/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



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Work Order Narrative

Work Order: 14-08-0206Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/04/14. They were assigned to Work Order 14-08-0206.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: AMEC Environment & Infrastructure	Work Order: 14-08-0206
121 Innovation Drive, Suite 200	Project Name: Former Pechiney Cast Plate Facility /
Irvine, CA 92617-3094	0106270030
	PO Number:
	Date/Time Received: 08/04/14 17:30
	Number of Containers: 4

Attn: Linda Conlan

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1332	14-08-0206-1	08/04/14 12:39	1	Solid
#1333	14-08-0206-2	08/04/14 12:41	1	Solid
925-V-R/R-SS-008	14-08-0206-3	08/04/14 12:59	1	Solid
925-V-R/R-SS-009	14-08-0206-4	08/04/14 13:01	1	Solid

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-08-0206
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 08/04/14

Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1332 (14-08-0206-1)						
Arsenic	11.3		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	205		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.323		0.248	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.23		0.495	mg/kg	EPA 6010B	EPA 3050B
Chromium	25.3		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	15.3		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	109		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	197		0.495	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.24		0.248	mg/kg	EPA 6010B	EPA 3050B
Nickel	29.7		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	386		0.990	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.358		0.0746	mg/kg	EPA 7471A	EPA 7471A Total
#1333 (14-08-0206-2)						
Arsenic	5.08		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	159		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.347		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.2		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	13.4		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	46.9		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	35.5		0.495	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.288		0.248	mg/kg	EPA 6010B	EPA 3050B
Nickel	42.6		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	37.4		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	129		0.990	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Work Order: 14-08-0206
 Project Name: Former Pechiney Cast Plate Facility /
 0106270030
 Received: 08/04/14

Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
925-V-R/R-SS-008 (14-08-0206-3)						
Arsenic	3.52		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	154		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.316		0.253	mg/kg	EPA 6010B	EPA 3050B
Chromium	26.6		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	14.2		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	103		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	47.8		0.505	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.458		0.253	mg/kg	EPA 6010B	EPA 3050B
Nickel	48.3		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	28.1		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	195		1.01	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.101		0.0820	mg/kg	EPA 7471A	EPA 7471A Total
C23-C24	6.5		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	9.0		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	16		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	8.8		4.9	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	50		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1248	66		50	ug/kg	EPA 8082	EPA 3540C
925-V-R/R-SS-009 (14-08-0206-4)						
Arsenic	10.3		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	729		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.321		0.251	mg/kg	EPA 6010B	EPA 3050B
Cadmium	13.9		0.503	mg/kg	EPA 6010B	EPA 3050B
Chromium	190		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	31.8		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	538		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	798		0.503	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	8.33		0.251	mg/kg	EPA 6010B	EPA 3050B
Nickel	103		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	36.7		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	2670		1.01	mg/kg	EPA 6010B	EPA 3050B
Mercury	1.97		0.167	mg/kg	EPA 7471A	EPA 7471A Total
C29-C32	38		25	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	85		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Aroclor-1248	91		50	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	51		50	ug/kg	EPA 8082	EPA 3540C

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-08-0206
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 08/04/14

Attn: Linda Conlan

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Client SampleID**Analyte****Result****Qualifiers****RL****Units****Method****Extraction**

Subcontracted analyses, if any, are not included in this summary.


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* MDL is shown

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-008	14-08-0206-3-A	08/04/14 12:59	Solid	GC 45	08/04/14	08/05/14 04:29	140804B07

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	6.5	4.9	1.00	
C25-C28	9.0	4.9	1.00	
C29-C32	16	4.9	1.00	
C33-C36	8.8	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	50	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	61	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-009	14-08-0206-4-A	08/04/14 13:01	Solid	GC 45	08/04/14	08/05/14 04:46	140804B07

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	25	5.00	
C7	ND	25	5.00	
C8	ND	25	5.00	
C9-C10	ND	25	5.00	
C11-C12	ND	25	5.00	
C13-C14	ND	25	5.00	
C15-C16	ND	25	5.00	
C17-C18	ND	25	5.00	
C19-C20	ND	25	5.00	
C21-C22	ND	25	5.00	
C23-C24	ND	25	5.00	
C25-C28	ND	25	5.00	
C29-C32	38	25	5.00	
C33-C36	ND	25	5.00	
C37-C40	ND	25	5.00	
C41-C44	ND	25	5.00	
C6-C44 Total	85	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	70	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-490-1065	N/A	Solid	GC 45	08/04/14	08/04/14 22:54	140804B07

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	114	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 08/04/14
 Work Order: 14-08-0206
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1332	14-08-0206-1-A	08/04/14 12:39	Solid	ICP 7300	08/04/14	08/05/14 20:41	140804L07

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.743	0.990	
Arsenic	11.3	0.743	0.990	
Barium	205	0.495	0.990	
Beryllium	0.323	0.248	0.990	
Cadmium	1.23	0.495	0.990	
Chromium	25.3	0.248	0.990	
Cobalt	15.3	0.248	0.990	
Copper	109	0.495	0.990	
Lead	197	0.495	0.990	
Molybdenum	1.24	0.248	0.990	
Nickel	29.7	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	32.1	0.248	0.990	
Zinc	386	0.990	0.990	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1333	14-08-0206-2-A	08/04/14 12:41	Solid	ICP 7300	08/04/14	08/05/14 20:42	140804L07

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	5.08	0.743	0.990	
Barium	159	0.495	0.990	
Beryllium	0.347	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	17.2	0.248	0.990	
Cobalt	13.4	0.248	0.990	
Copper	46.9	0.495	0.990	
Lead	35.5	0.495	0.990	
Molybdenum	0.288	0.248	0.990	
Nickel	42.6	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	37.4	0.248	0.990	
Zinc	129	0.990	0.990	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 08/04/14
 Work Order: 14-08-0206
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-008	14-08-0206-3-A	08/04/14 12:59	Solid	ICP 7300	08/04/14	08/05/14 20:43	140804L07

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	3.52	0.758	1.01	
Barium	154	0.505	1.01	
Beryllium	0.316	0.253	1.01	
Cadmium	ND	0.505	1.01	
Chromium	26.6	0.253	1.01	
Cobalt	14.2	0.253	1.01	
Copper	103	0.505	1.01	
Lead	47.8	0.505	1.01	
Molybdenum	0.458	0.253	1.01	
Nickel	48.3	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	28.1	0.253	1.01	
Zinc	195	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-009	14-08-0206-4-A	08/04/14 13:01	Solid	ICP 7300	08/04/14	08/05/14 20:44	140804L07

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	10.3	0.754	1.01	
Barium	729	0.503	1.01	
Beryllium	0.321	0.251	1.01	
Cadmium	13.9	0.503	1.01	
Chromium	190	0.251	1.01	
Cobalt	31.8	0.251	1.01	
Copper	538	0.503	1.01	
Lead	798	0.503	1.01	
Molybdenum	8.33	0.251	1.01	
Nickel	103	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	36.7	0.251	1.01	
Zinc	2670	1.01	1.01	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 08/04/14
 Work Order: 14-08-0206
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18697	N/A	Solid	ICP 7300	08/04/14	08/05/14 20:19	140804L07

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1332	14-08-0206-1-A	08/04/14 12:39	Solid	Mercury 04	08/05/14	08/05/14 19:34	140805L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.358	0.0746	1.00			
#1333	14-08-0206-2-A	08/04/14 12:41	Solid	Mercury 04	08/05/14	08/05/14 19:36	140805L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0794	1.00			
925-V-R/R-SS-008	14-08-0206-3-A	08/04/14 12:59	Solid	Mercury 04	08/05/14	08/05/14 19:38	140805L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.101	0.0820	1.00			
925-V-R/R-SS-009	14-08-0206-4-A	08/04/14 13:01	Solid	Mercury 04	08/05/14	08/06/14 15:19	140805L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		1.97	0.167	2.00			
Method Blank	099-16-272-447	N/A	Solid	Mercury 04	08/05/14	08/05/14 19:05	140805L06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-008	14-08-0206-3-A	08/04/14 12:59	Solid	GC 31	08/04/14	08/05/14 19:03	140804L12

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	66	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	115	60-125	
2,4,5,6-Tetrachloro-m-Xylene	113	50-130	

925-V-R/R-SS-009	14-08-0206-4-A	08/04/14 13:01	Solid	GC 31	08/04/14	08/05/14 19:22	140804L12
------------------	----------------	----------------	-------	-------	----------	----------------	-----------

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	91	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	51	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	60-125	
2,4,5,6-Tetrachloro-m-Xylene	106	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 08/04/14
 Work Order: 14-08-0206
 Preparation: EPA 3540C
 Method: EPA 8082
 Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-003-296	N/A	Solid	GC 31	08/04/14	08/05/14 18:44	140804L12

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	113	60-125	
2,4,5,6-Tetrachloro-m-Xylene	107	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
14-08-0057-23	Sample	Solid	GC 45	08/04/14	08/05/14 00:42	140804S07				
14-08-0057-23	Matrix Spike	Solid	GC 45	08/04/14	08/04/14 23:30	140804S07				
14-08-0057-23	Matrix Spike Duplicate	Solid	GC 45	08/04/14	08/04/14 23:48	140804S07				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	266.6	67	261.3	65	64-130	2	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14

Work Order: 14-08-0206

Preparation: EPA 7471A Total

Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-08-0136-25	Sample	Solid	Mercury 04	08/05/14	08/05/14 19:09	140805S06
14-08-0136-25	Matrix Spike	Solid	Mercury 04	08/05/14	08/05/14 19:11	140805S06
14-08-0136-25	Matrix Spike Duplicate	Solid	Mercury 04	08/05/14	08/05/14 19:14	140805S06

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.1800	0.8350	1.065	106	0.9676	94	71-137	10	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
925-V-R/R-SS-008	Sample	Solid	GC 31	08/04/14	08/05/14 19:03	140804S12
925-V-R/R-SS-008	Matrix Spike	Solid	GC 31	08/04/14	08/05/14 19:41	140804S12
925-V-R/R-SS-008	Matrix Spike Duplicate	Solid	GC 31	08/04/14	08/05/14 20:00	140804S12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	97.21	97	114.2	114	50-135	16	0-25	
Aroclor-1260	ND	100.0	103.1	103	156.4	156	50-135	41	0-25	3,4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-1065	LCS	Solid	GC 45	08/04/14	08/04/14 23:11	140804B07
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	319.8	80	75-123	

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18697	LCS	Solid	ICP 7300	08/04/14	08/05/14 20:21	140804L07
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	26.80	107	80-120	73-127	
Arsenic	25.00	26.28	105	80-120	73-127	
Barium	25.00	27.81	111	80-120	73-127	
Beryllium	25.00	26.62	106	80-120	73-127	
Cadmium	25.00	27.49	110	80-120	73-127	
Chromium	25.00	27.19	109	80-120	73-127	
Cobalt	25.00	30.00	120	80-120	73-127	
Copper	25.00	28.05	112	80-120	73-127	
Lead	25.00	27.69	111	80-120	73-127	
Molybdenum	25.00	27.11	108	80-120	73-127	
Nickel	25.00	28.46	114	80-120	73-127	
Selenium	25.00	24.45	98	80-120	73-127	
Silver	12.50	13.30	106	80-120	73-127	
Thallium	25.00	27.39	110	80-120	73-127	
Vanadium	25.00	27.26	109	80-120	73-127	
Zinc	25.00	27.40	110	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 08/04/14
 Work Order: 14-08-0206
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-447	LCS	Solid	Mercury 04	08/05/14	08/05/14 19:07	140805L06

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.8044	96	85-121	

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/04/14
Work Order: 14-08-0206
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-02-003-296	LCS	Solid	GC 31	08/04/14	08/05/14 18:25	140804L12
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	116.4	116	50-135	
Aroclor-1260		100.0	120.6	121	60-130	

Sample Analysis Summary Report

Work Order: 14-08-0206

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 04	1
EPA 8015B (M)	EPA 3550B	628	GC 45	1
EPA 8082	EPA 3540C	669	GC 31	1

Glossary of Terms and Qualifiers

Work Order: 14-08-0206

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CHAIN-OF-CUSTODY RECORD

23 31 49 8

PROJECT NAME: Former Pechiney Cast Plate Facility		DATE: 8-4-14	PAGE: 1 OF 1																																																																														
PROJECT NUMBER: 0106270030		REPORTING REQUIREMENTS:																																																																															
RESULTS TO: Linda Conlan																																																																																	
TURNAROUND TIME: 48 HR																																																																																	
SAMPLE SHIPMENT METHOD: lab courier																																																																																	
LABORATORY NAME: CalScience		CLIENT INFORMATION: AMEC																																																																															
LABORATORY ADDRESS:																																																																																	
LABORATORY CONTACT: Steve Novak		GEOTRACKER REQUIRED: YES																																																																															
LABORATORY PHONE NUMBER:		SITE SPECIFIC GLOBAL ID NO.																																																																															
SAMPLERS (SIGNATURE): Nimberoff-Cherninsky		14-08-0206																																																																															
DATE	TIME	SAMPLE NUMBER	ANALYSES	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS																																																																						
8-4-14	1239	#1332	X	EPA 8015	EPA 8082					1																																																																							
↓	1241	#1333	X							1																																																																							
↓	1259	925-V-R/R-SS-008	X	X						1																																																																							
↓	1301	925-V-R/R-SS-009	X	X						1																																																																							
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COMPANY: AMEC			COMPANY: AMEC																																																																														

Calscience

WORK ORDER #: 14-08-0206

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 08/4/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.3 °C - 0.3 °C (CF) = 2.0 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by:)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 676

CUSTODY SEALS INTACT:

☐ Cooler ☐ ☐ No (Not Intact) ☒ Not Present ☐ N/A

Checked by: 676

☐ Sample ☐ ☐ No (Not Intact) ☒ Not Present

Checked by: 816

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ EnCres® ☐ TerraCores® ☐

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s
☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ ☐ ☐

Air: ☐ Tedlar® ☐ Canister Other: ☐ Trip Blank Lot#: Labeled/Checked by: 816

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 681

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂-NaOH f: Filtered Scanned by: 681



WORK ORDER NUMBER: 14-08-0774

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Environment & Infrastructure

Client Project Name: Former Pechiney Cast Plate Facility / 0106270030

Attention: Linda Conlan
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

A handwritten signature in black ink, appearing to read "S. Nowak".

Approved for release on 08/13/2014 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

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 Work Order Number: 14-08-0774

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/11/14. They were assigned to Work Order 14-08-0774.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: AMEC Environment & Infrastructure	Work Order: 14-08-0774
121 Innovation Drive, Suite 200	Project Name: Former Pechiney Cast Plate Facility / 0106270030
Irvine, CA 92617-3094	PO Number:
	Date/Time Received: 08/11/14 17:04
	Number of Containers: 9
Attn: Linda Conlan	

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
#1332-5	14-08-0774-1	08/11/14 08:10	1	Solid
925-V-R/R-SS-010	14-08-0774-2	08/11/14 10:00	1	Solid
925-V-R/R-SS-011	14-08-0774-3	08/11/14 10:02	1	Solid
925-V-R/R-SS-012	14-08-0774-4	08/11/14 10:04	1	Solid
925-V-R/R-SS-013	14-08-0774-5	08/11/14 10:05	1	Solid
925-V-R/R-SS-014	14-08-0774-6	08/11/14 10:06	1	Solid
925-V-R/R-SS-015	14-08-0774-7	08/11/14 10:07	1	Solid
#1345	14-08-0774-8	08/11/14 14:00	1	Solid
#1346	14-08-0774-9	08/11/14 14:02	1	Solid



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Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-08-0774
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 08/11/14

Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
#1332-5 (14-08-0774-1)						
Arsenic	1.62		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	74.6		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.251		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.42		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	16.2		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.56		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	25.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	42.4		1.00	mg/kg	EPA 6010B	EPA 3050B
Aroclor-1248	64		50	ug/kg	EPA 8082	EPA 3540C
925-V-R/R-SS-010 (14-08-0774-2)						
Antimony	2.73		0.743	mg/kg	EPA 6010B	EPA 3050B
Arsenic	1.96		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	357		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.353		0.248	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.47		0.495	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.6		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	73.8		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	151		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	20.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.5		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	1350		0.990	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.162		0.0820	mg/kg	EPA 7471A	EPA 7471A Total

Return to Contents

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-08-0774
Project Name: Former Pechiney Cast Plate Facility / 0106270030
Received: 08/11/14

Attn: Linda Conlan

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
925-V-R/R-SS-011 (14-08-0774-3)						
Arsenic	1.45		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	223		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.324		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.02		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	56.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	124		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.436		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	15.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	30.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	734		1.00	mg/kg	EPA 6010B	EPA 3050B
925-V-R/R-SS-012 (14-08-0774-4)						
Antimony	1.93		0.739	mg/kg	EPA 6010B	EPA 3050B
Arsenic	3.11		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	307		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.354		0.246	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.46		0.493	mg/kg	EPA 6010B	EPA 3050B
Chromium	23.0		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.9		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	91.7		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	199		0.493	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.807		0.246	mg/kg	EPA 6010B	EPA 3050B
Nickel	20.7		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.7		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	1100		0.985	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.195		0.0806	mg/kg	EPA 7471A	EPA 7471A Total
925-V-R/R-SS-013 (14-08-0774-5)						
Barium	178		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.360		0.246	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.2		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.0		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	40.2		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	61.3		0.493	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.1		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.9		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	338		0.985	mg/kg	EPA 6010B	EPA 3050B

* MDL is shown

Detections Summary

Client: AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Work Order: 14-08-0774
Project Name: Former Pechiney Cast Plate Facility /
0106270030
Received: 08/11/14

Attn: Linda Conlan

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Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
925-V-R/R-SS-014 (14-08-0774-6)						
Barium	185		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.312		0.245	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.0		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.1		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	40.0		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	64.5		0.490	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.3		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.0		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	403		0.980	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.957		0.0833	mg/kg	EPA 7471A	EPA 7471A Total
925-V-R/R-SS-015 (14-08-0774-7)						
Arsenic	1.07		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	150		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.336		0.246	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.2		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.9		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	27.5		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	86.5		0.493	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.8		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.2		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	153		0.985	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.236		0.0833	mg/kg	EPA 7471A	EPA 7471A Total
#1345 (14-08-0774-8)						
Aroclor-1248	58000		5000	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	3400		500	ug/kg	EPA 8082	EPA 3540C
#1346 (14-08-0774-9)						
Aroclor-1248	8800		500	ug/kg	EPA 8082	EPA 3540C
Aroclor-1260	670		50	ug/kg	EPA 8082	EPA 3540C

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 08/11/14
 Work Order: 14-08-0774
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1332-5	14-08-0774-1-A	08/11/14 08:10	Solid	ICP 7300	08/11/14	08/13/14 12:30	140811L12

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.750	1.00	
Arsenic	1.62	0.750	1.00	
Barium	74.6	0.500	1.00	
Beryllium	0.251	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	16.1	0.250	1.00	
Cobalt	9.42	0.250	1.00	
Copper	16.2	0.500	1.00	
Lead	1.56	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	14.0	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	25.5	0.250	1.00	
Zinc	42.4	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-010	14-08-0774-2-A	08/11/14 10:00	Solid	ICP 7300	08/11/14	08/13/14 12:31	140811L12

Parameter	Result	RL	DF	Qualifiers
Antimony	2.73	0.743	0.990	
Arsenic	1.96	0.743	0.990	
Barium	357	0.495	0.990	
Beryllium	0.353	0.248	0.990	
Cadmium	1.47	0.495	0.990	
Chromium	19.1	0.248	0.990	
Cobalt	11.6	0.248	0.990	
Copper	73.8	0.495	0.990	
Lead	151	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	20.1	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	32.5	0.248	0.990	
Zinc	1350	0.990	0.990	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-011	14-08-0774-3-A	08/11/14 10:02	Solid	ICP 7300	08/11/14	08/13/14 12:32	140811L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	1.45	0.750	1.00	
Barium	223	0.500	1.00	
Beryllium	0.324	0.250	1.00	
Cadmium	1.02	0.500	1.00	
Chromium	18.8	0.250	1.00	
Cobalt	11.7	0.250	1.00	
Copper	56.0	0.500	1.00	
Lead	124	0.500	1.00	
Molybdenum	0.436	0.250	1.00	
Nickel	15.1	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	30.5	0.250	1.00	
Zinc	734	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-012	14-08-0774-4-A	08/11/14 10:04	Solid	ICP 7300	08/11/14	08/13/14 12:33	140811L12

Parameter	Result	RL	DF	Qualifiers
Antimony	1.93	0.739	0.985	
Arsenic	3.11	0.739	0.985	
Barium	307	0.493	0.985	
Beryllium	0.354	0.246	0.985	
Cadmium	1.46	0.493	0.985	
Chromium	23.0	0.246	0.985	
Cobalt	12.9	0.246	0.985	
Copper	91.7	0.493	0.985	
Lead	199	0.493	0.985	
Molybdenum	0.807	0.246	0.985	
Nickel	20.7	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	33.7	0.246	0.985	
Zinc	1100	0.985	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 08/11/14
 Work Order: 14-08-0774
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-013	14-08-0774-5-A	08/11/14 10:05	Solid	ICP 7300	08/11/14	08/13/14 12:34	140811L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	ND	0.739	0.985	
Barium	178	0.493	0.985	
Beryllium	0.360	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	17.2	0.246	0.985	
Cobalt	12.0	0.246	0.985	
Copper	40.2	0.493	0.985	
Lead	61.3	0.493	0.985	
Molybdenum	ND	0.246	0.985	
Nickel	14.1	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	33.9	0.246	0.985	
Zinc	338	0.985	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-014	14-08-0774-6-A	08/11/14 10:06	Solid	ICP 7300	08/11/14	08/13/14 12:35	140811L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	ND	0.735	0.980	
Barium	185	0.490	0.980	
Beryllium	0.312	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	15.0	0.245	0.980	
Cobalt	10.1	0.245	0.980	
Copper	40.0	0.490	0.980	
Lead	64.5	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	12.3	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	29.0	0.245	0.980	
Zinc	403	0.980	0.980	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 08/11/14
 Work Order: 14-08-0774
 Preparation: EPA 3050B
 Method: EPA 6010B
 Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-015	14-08-0774-7-A	08/11/14 10:07	Solid	ICP 7300	08/11/14	08/13/14 12:36	140811L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	1.07	0.739	0.985	
Barium	150	0.493	0.985	
Beryllium	0.336	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	15.2	0.246	0.985	
Cobalt	10.9	0.246	0.985	
Copper	27.5	0.493	0.985	
Lead	86.5	0.493	0.985	
Molybdenum	ND	0.246	0.985	
Nickel	12.8	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	32.2	0.246	0.985	
Zinc	153	0.985	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18726	N/A	Solid	ICP 7300	08/11/14	08/11/14 20:19	140811L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1332-5	14-08-0774-1-A	08/11/14 08:10	Solid	Mercury 05	08/12/14	08/12/14 18:16	140812L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			
925-V-R/R-SS-010	14-08-0774-2-A	08/11/14 10:00	Solid	Mercury 05	08/12/14	08/12/14 18:23	140812L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.162	0.0820	1.00			
925-V-R/R-SS-011	14-08-0774-3-A	08/11/14 10:02	Solid	Mercury 05	08/12/14	08/12/14 18:25	140812L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0806	1.00			
925-V-R/R-SS-012	14-08-0774-4-A	08/11/14 10:04	Solid	Mercury 05	08/12/14	08/12/14 18:27	140812L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.195	0.0806	1.00			
925-V-R/R-SS-013	14-08-0774-5-A	08/11/14 10:05	Solid	Mercury 05	08/12/14	08/12/14 18:30	140812L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0806	1.00			
925-V-R/R-SS-014	14-08-0774-6-A	08/11/14 10:06	Solid	Mercury 05	08/12/14	08/12/14 18:32	140812L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.957	0.0833	1.00			
925-V-R/R-SS-015	14-08-0774-7-A	08/11/14 10:07	Solid	Mercury 05	08/12/14	08/12/14 18:10	140812L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		0.236	0.0833	1.00			
Method Blank	099-16-272-470	N/A	Solid	Mercury 05	08/12/14	08/12/14 18:05	140812L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Mercury		ND	0.0833	1.00			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1332-5	14-08-0774-1-A	08/11/14 08:10	Solid	GC 31	08/11/14	08/12/14 20:22	140811L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	64	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	119	60-125	
2,4,5,6-Tetrachloro-m-Xylene	127	50-130	

925-V-R/R-SS-010	14-08-0774-2-A	08/11/14 10:00	Solid	GC 31	08/11/14	08/12/14 20:41	140811L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	51	1.00	
Aroclor-1221	ND	51	1.00	
Aroclor-1232	ND	51	1.00	
Aroclor-1242	ND	51	1.00	
Aroclor-1248	ND	51	1.00	
Aroclor-1254	ND	51	1.00	
Aroclor-1260	ND	51	1.00	
Aroclor-1262	ND	51	1.00	
Aroclor-1268	ND	51	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	114	60-125	
2,4,5,6-Tetrachloro-m-Xylene	126	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

Page 2 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-011	14-08-0774-3-A	08/11/14 10:02	Solid	GC 31	08/11/14	08/12/14 21:00	140811L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	60-125	
2,4,5,6-Tetrachloro-m-Xylene	129	50-130	

925-V-R/R-SS-012	14-08-0774-4-A	08/11/14 10:04	Solid	GC 31	08/11/14	08/12/14 21:19	140811L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	114	60-125	
2,4,5,6-Tetrachloro-m-Xylene	127	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-013	14-08-0774-5-A	08/11/14 10:05	Solid	GC 31	08/11/14	08/12/14 21:38	140811L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	114	60-125	
2,4,5,6-Tetrachloro-m-Xylene	127	50-130	

925-V-R/R-SS-014	14-08-0774-6-A	08/11/14 10:06	Solid	GC 31	08/11/14	08/12/14 21:57	140811L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	60-125	
2,4,5,6-Tetrachloro-m-Xylene	127	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
925-V-R/R-SS-015	14-08-0774-7-A	08/11/14 10:07	Solid	GC 31	08/11/14	08/12/14 22:16	140811L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	113	60-125	
2,4,5,6-Tetrachloro-m-Xylene	126	50-130	

#1345	14-08-0774-8-A	08/11/14 14:00	Solid	GC 31	08/11/14	08/13/14 13:05	140811L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	500	10.0	
Aroclor-1221	ND	500	10.0	
Aroclor-1232	ND	500	10.0	
Aroclor-1242	ND	500	10.0	
Aroclor-1254	ND	500	10.0	
Aroclor-1260	3400	500	10.0	
Aroclor-1262	ND	500	10.0	
Aroclor-1268	ND	500	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	125	60-125	
2,4,5,6-Tetrachloro-m-Xylene	119	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
#1345	14-08-0774-8-A	08/11/14 14:00	Solid	GC 31	08/11/14	08/13/14 13:43	140811L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1248	58000	5000	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	158	60-125	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	130	50-130	

#1346	14-08-0774-9-A	08/11/14 14:02	Solid	GC 31	08/11/14	08/12/14 22:54	140811L16
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Parameter	Result	RL	DF	Qualifiers
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Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	670	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	111	60-125	
2,4,5,6-Tetrachloro-m-Xylene	119	50-130	

#1346	14-08-0774-9-A	08/11/14 14:02	Solid	GC 31	08/11/14	08/13/14 13:24	140811L16
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1248	8800	500	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	124	60-125	
2,4,5,6-Tetrachloro-m-Xylene	129	50-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: Former Pechiney Cast Plate Facility / 0106270030

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-003-299	N/A	Solid	GC 31	08/11/14	08/12/14 19:25	140811L16

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	
Aroclor-1268	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	60-125	
2,4,5,6-Tetrachloro-m-Xylene	107	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
14-08-0785-1	Sample	Solid	ICP 7300	08/11/14	08/11/14 20:22	140811S12				
14-08-0785-1	Matrix Spike	Solid	ICP 7300	08/11/14	08/11/14 20:23	140811S12				
14-08-0785-1	Matrix Spike Duplicate	Solid	ICP 7300	08/11/14	08/11/14 20:24	140811S12				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	4.342	17	1.299	5	50-115	108	0-20	3,4
Arsenic	9.581	25.00	34.73	101	34.17	98	75-125	2	0-20	
Barium	166.2	25.00	199.0	4X	196.4	4X	75-125	4X	0-20	Q
Beryllium	0.4724	25.00	26.47	104	26.86	106	75-125	1	0-20	
Cadmium	ND	25.00	26.06	104	26.32	105	75-125	1	0-20	
Chromium	22.01	25.00	47.32	101	48.39	106	75-125	2	0-20	
Cobalt	11.63	25.00	38.17	106	38.42	107	75-125	1	0-20	
Copper	32.33	25.00	60.63	113	61.67	117	75-125	2	0-20	
Lead	33.56	25.00	67.24	135	60.08	106	75-125	11	0-20	3
Molybdenum	0.8366	25.00	22.93	88	23.15	89	75-125	1	0-20	
Nickel	21.78	25.00	46.94	101	47.38	102	75-125	1	0-20	
Selenium	ND	25.00	22.88	92	22.87	91	75-125	0	0-20	
Silver	ND	12.50	12.95	104	13.09	105	75-125	1	0-20	
Thallium	ND	25.00	21.80	87	22.15	89	75-125	2	0-20	
Vanadium	39.16	25.00	64.12	100	65.66	106	75-125	2	0-20	
Zinc	68.52	25.00	96.29	111	94.04	102	75-125	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14

Work Order: 14-08-0774

Preparation: EPA 7471A Total

Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
925-V-R/R-SS-015	Sample	Solid	Mercury 05	08/12/14	08/12/14 18:10	140812S03				
925-V-R/R-SS-015	Matrix Spike	Solid	Mercury 05	08/12/14	08/12/14 18:12	140812S03				
925-V-R/R-SS-015	Matrix Spike Duplicate	Solid	Mercury 05	08/12/14	08/12/14 18:14	140812S03				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.2361	0.8350	1.200	115	1.130	107	71-137	6	0-14	

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RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
#1332-5	Sample	Solid	GC 31	08/11/14	08/12/14 20:22	140811S16
#1332-5	Matrix Spike	Solid	GC 31	08/11/14	08/12/14 19:44	140811S16
#1332-5	Matrix Spike Duplicate	Solid	GC 31	08/11/14	08/12/14 20:03	140811S16

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	111.1	111	114.9	115	50-135	3	0-25	
Aroclor-1260	ND	100.0	112.6	113	114.7	115	50-135	2	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3050B
Method: EPA 6010B

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18726	LCS	Solid	ICP 7300	08/11/14	08/11/14 20:21	140811L12
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Antimony	25.00	28.73	115	80-120	73-127	
Arsenic	25.00	26.68	107	80-120	73-127	
Barium	25.00	26.12	104	80-120	73-127	
Beryllium	25.00	26.14	105	80-120	73-127	
Cadmium	25.00	27.78	111	80-120	73-127	
Chromium	25.00	27.00	108	80-120	73-127	
Cobalt	25.00	29.57	118	80-120	73-127	
Copper	25.00	27.83	111	80-120	73-127	
Lead	25.00	27.56	110	80-120	73-127	
Molybdenum	25.00	27.24	109	80-120	73-127	
Nickel	25.00	28.28	113	80-120	73-127	
Selenium	25.00	25.13	101	80-120	73-127	
Silver	12.50	13.42	107	80-120	73-127	
Thallium	25.00	27.70	111	80-120	73-127	
Vanadium	25.00	26.15	105	80-120	73-127	
Zinc	25.00	27.48	110	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

AMEC Environment & Infrastructure
 121 Innovation Drive, Suite 200
 Irvine, CA 92617-3094

Date Received: 08/11/14
 Work Order: 14-08-0774
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-470	LCS	Solid	Mercury 05	08/12/14	08/12/14 18:08	140812L03

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury	0.8350	0.8845	106	85-121	

Quality Control - LCS

AMEC Environment & Infrastructure
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/11/14
Work Order: 14-08-0774
Preparation: EPA 3540C
Method: EPA 8082

Project: Former Pechiney Cast Plate Facility / 0106270030

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-02-003-299	LCS	Solid	GC 31	08/11/14	08/12/14 18:32	140811L16
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	111.1	111	50-135	
Aroclor-1260		100.0	107.9	108	60-130	

Sample Analysis Summary Report

Work Order: 14-08-0774

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8082	EPA 3540C	669	GC 31	1


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Glossary of Terms and Qualifiers

Work Order: 14-08-0774

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Calscience

WORK ORDER #: 14-08-0774

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC

DATE: 08/11/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.9 °C - 0.3 °C (CF) = 2.6 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 678

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____ ☐ No (Not Intact) ☒ Not Present ☐ N/A Checked by: 678

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present Checked by: 878

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ ☐ ☒

Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s
☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: 878

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 678

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: 678



9765 Eton Avenue
Chatsworth
California 91311
Tel: (818) 998-5547
Fax: (818) 998-7258

October 04, 2013

Linda Conlan

AMEC Environment & Infrastructure, Inc.

121 Innovation Drive, Suite 200

Irvine, CA 92617

Re : Former Pechiney Cast Plate, Inc. / 0106270030

A844301 / 3J01004

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 10/01/13 15:15 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytics.

Sincerely,

Viorel Vasile

Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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8082 PCBs

45-V-R/R-SS-002	3J01004-01	Soil	2	10/01/13 09:00	10/01/13 15:15
45-V-R/R-SS-003	3J01004-02	Soil	2	10/01/13 09:00	10/01/13 15:15
45-V-R/R-SS-004	3J01004-03	Soil	2	10/01/13 09:05	10/01/13 15:15
45-V-R/R-SS-005	3J01004-04	Soil	2	10/01/13 09:10	10/01/13 15:15
45-V-R/R-SS-006	3J01004-05	Soil	2	10/01/13 09:15	10/01/13 15:15
45-V-R/R-SS-007	3J01004-06	Soil	2	10/01/13 09:30	10/01/13 15:15
45-V-R/R-SS-008	3J01004-07	Soil	2	10/01/13 09:35	10/01/13 15:15
45-V-R/R-SS-009	3J01004-08	Soil	2	10/01/13 09:40	10/01/13 15:15
45-V-R/R-SS-010	3J01004-09	Soil	2	10/01/13 09:45	10/01/13 15:15
45-V-R/R-SS-011	3J01004-10	Soil	2	10/01/13 09:50	10/01/13 15:15
83-V-R/R-SS-001	3J01004-11	Soil	2	10/01/13 10:00	10/01/13 15:15
83-V-R/R-SS-002	3J01004-12	Soil	2	10/01/13 10:05	10/01/13 15:15

CAM Metals Less Hg 6000/7000

45-V-R/R-SS-002	3J01004-01	Soil	2	10/01/13 09:00	10/01/13 15:15
45-V-R/R-SS-003	3J01004-02	Soil	2	10/01/13 09:00	10/01/13 15:15
45-V-R/R-SS-004	3J01004-03	Soil	2	10/01/13 09:05	10/01/13 15:15
45-V-R/R-SS-005	3J01004-04	Soil	2	10/01/13 09:10	10/01/13 15:15
45-V-R/R-SS-006	3J01004-05	Soil	2	10/01/13 09:15	10/01/13 15:15

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
45-V-R/R-SS-007	3J01004-06	Soil	2	10/01/13 09:30	10/01/13 15:15
45-V-R/R-SS-008	3J01004-07	Soil	2	10/01/13 09:35	10/01/13 15:15
45-V-R/R-SS-009	3J01004-08	Soil	2	10/01/13 09:40	10/01/13 15:15
45-V-R/R-SS-010	3J01004-09	Soil	2	10/01/13 09:45	10/01/13 15:15
45-V-R/R-SS-011	3J01004-10	Soil	2	10/01/13 09:50	10/01/13 15:15
83-V-R/R-SS-001	3J01004-11	Soil	2	10/01/13 10:00	10/01/13 15:15
83-V-R/R-SS-002	3J01004-12	Soil	2	10/01/13 10:05	10/01/13 15:15

Carbon Chain Characterization 8015M

45-V-R/R-SS-002	3J01004-01	Soil	2	10/01/13 09:00	10/01/13 15:15
45-V-R/R-SS-003	3J01004-02	Soil	2	10/01/13 09:00	10/01/13 15:15
45-V-R/R-SS-004	3J01004-03	Soil	2	10/01/13 09:05	10/01/13 15:15
45-V-R/R-SS-005	3J01004-04	Soil	2	10/01/13 09:10	10/01/13 15:15
45-V-R/R-SS-006	3J01004-05	Soil	2	10/01/13 09:15	10/01/13 15:15
45-V-R/R-SS-007	3J01004-06	Soil	2	10/01/13 09:30	10/01/13 15:15
45-V-R/R-SS-008	3J01004-07	Soil	2	10/01/13 09:35	10/01/13 15:15
45-V-R/R-SS-009	3J01004-08	Soil	2	10/01/13 09:40	10/01/13 15:15
45-V-R/R-SS-010	3J01004-09	Soil	2	10/01/13 09:45	10/01/13 15:15
45-V-R/R-SS-011	3J01004-10	Soil	2	10/01/13 09:50	10/01/13 15:15
83-V-R/R-SS-001	3J01004-11	Soil	2	10/01/13 10:00	10/01/13 15:15
83-V-R/R-SS-002	3J01004-12	Soil	2	10/01/13 10:05	10/01/13 15:15

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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Mercury Total EPA 7470A/7471A

45-V-R/R-SS-002	3J01004-01	Soil	2	10/01/13 09:00	10/01/13 15:15
45-V-R/R-SS-003	3J01004-02	Soil	2	10/01/13 09:00	10/01/13 15:15
45-V-R/R-SS-004	3J01004-03	Soil	2	10/01/13 09:05	10/01/13 15:15
45-V-R/R-SS-005	3J01004-04	Soil	2	10/01/13 09:10	10/01/13 15:15
45-V-R/R-SS-006	3J01004-05	Soil	2	10/01/13 09:15	10/01/13 15:15
45-V-R/R-SS-007	3J01004-06	Soil	2	10/01/13 09:30	10/01/13 15:15
45-V-R/R-SS-008	3J01004-07	Soil	2	10/01/13 09:35	10/01/13 15:15
45-V-R/R-SS-009	3J01004-08	Soil	2	10/01/13 09:40	10/01/13 15:15
45-V-R/R-SS-010	3J01004-09	Soil	2	10/01/13 09:45	10/01/13 15:15
45-V-R/R-SS-011	3J01004-10	Soil	2	10/01/13 09:50	10/01/13 15:15
83-V-R/R-SS-001	3J01004-11	Soil	2	10/01/13 10:00	10/01/13 15:15
83-V-R/R-SS-002	3J01004-12	Soil	2	10/01/13 10:05	10/01/13 15:15

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Polychlorinated Biphenyls by GC

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: ug/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13
Date Analyzed:	10/03/13	10/03/13	10/03/13	10/03/13
AA ID No:	3J01004-01	3J01004-02	3J01004-03	3J01004-04
Client ID No:	45-V-R/R-SS-002	45-V-R/R-SS-003	45-V-R/R-SS-004	45-V-R/R-SS-005
Matrix:	Soil	Soil	Soil	Soil
Dilution Factor:	1	1	1	1

MRL

8082 PCBs (EPA 8082)

Aroclor-1016	<20	<20	<20	<20	20
Aroclor-1221	<20	<20	<20	<20	20
Aroclor-1232	<20	<20	<20	<20	20
Aroclor-1242	<20	<20	<20	<20	20
Aroclor-1248	<20	<20	<20	<20	20
Aroclor-1254	<20	<20	<20	<20	20
Aroclor-1260	<20	<20	<20	<20	20
Aroclor-1268	<20	<20	<20	<20	20

Surrogates

Decachlorobiphenyl	101%	119%	122%	128%	<u>%REC Limits</u> 50-150
Tetrachloro-meta-xylene	72%	87%	87%	93%	50-150

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Polychlorinated Biphenyls by GC

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: ug/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13	
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13	
Date Analyzed:	10/03/13	10/03/13	10/03/13	10/03/13	
AA ID No:	3J01004-05	3J01004-06	3J01004-07	3J01004-08	
Client ID No:	45-V-R/R-SS-006	45-V-R/R-SS-007	45-V-R/R-SS-008	45-V-R/R-SS-009	
Matrix:	Soil	Soil	Soil	Soil	
Dilution Factor:	1	1	1	1	MRL

8082 PCBs (EPA 8082)

Aroclor-1016	<20	<20	<20	<20	20
Aroclor-1221	<20	<20	<20	<20	20
Aroclor-1232	<20	<20	<20	<20	20
Aroclor-1242	<20	<20	<20	<20	20
Aroclor-1248	<20	<20	<20	<20	20
Aroclor-1254	<20	<20	<20	<20	20
Aroclor-1260	<20	<20	<20	<20	20
Aroclor-1268	<20	<20	<20	<20	20

Surrogates

					<u>%REC Limits</u>
Decachlorobiphenyl	133%	111%	114%	125%	50-150
Tetrachloro-meta-xylene	89%	75%	89%	85%	50-150

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Polychlorinated Biphenyls by GC

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: ug/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13
Date Analyzed:	10/03/13	10/03/13	10/03/13	10/03/13
AA ID No:	3J01004-09	3J01004-10	3J01004-11	3J01004-12
Client ID No:	45-V-R/R-SS-010	45-V-R/R-SS-011	83-V-R/R-SS-001	83-V-R/R-SS-002
Matrix:	Soil	Soil	Soil	Soil
Dilution Factor:	1	1	1	1

MRL

8082 PCBs (EPA 8082)

Aroclor-1016	<20	<20	<20	<20	20
Aroclor-1221	<20	<20	<20	<20	20
Aroclor-1232	<20	<20	<20	<20	20
Aroclor-1242	<20	<20	<20	<20	20
Aroclor-1248	<20	<20	<20	<20	20
Aroclor-1254	<20	<20	<20	<20	20
Aroclor-1260	<20	<20	<20	<20	20
Aroclor-1268	<20	<20	<20	<20	20

Surrogates

					<u>%REC Limits</u>
Decachlorobiphenyl	119%	104%	138%	115%	50-150
Tetrachloro-meta-xylene	80%	134%	134%	89%	50-150

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Carbon Chain by GC/FID

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: mg/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13
Date Analyzed:	10/03/13	10/03/13	10/03/13	10/03/13
AA ID No:	3J01004-01	3J01004-02	3J01004-03	3J01004-04
Client ID No:	45-V-R/R-SS-002	45-V-R/R-SS-003	45-V-R/R-SS-004	45-V-R/R-SS-005
Matrix:	Soil	Soil	Soil	Soil
Dilution Factor:	1	1	1	1
				MRL

Carbon Chain Characterization 8015M (EPA 8015M)

C6-C8	<1.0	<1.0	<1.0	<1.0	1.0
C8-C10	<1.0	<1.0	<1.0	<1.0	1.0
C10-C12	<1.0	<1.0	<1.0	<1.0	1.0
C12-C14	<1.0	<1.0	<1.0	<1.0	1.0
C14-C16	<1.0	<1.0	<1.0	<1.0	1.0
C16-C18	<1.0	<1.0	<1.0	<1.0	1.0
C18-C20	<1.0	<1.0	<1.0	<1.0	1.0
C20-C22	<1.0	<1.0	<1.0	<1.0	1.0
C22-C24	<1.0	<1.0	<1.0	<1.0	1.0
C24-C26	<1.0	<1.0	<1.0	<1.0	1.0
C26-C28	<1.0	<1.0	<1.0	<1.0	1.0
C28-C32	<1.0	<1.0	<1.0	<1.0	1.0
C32-C34	<1.0	<1.0	<1.0	<1.0	1.0
C34-C36	<1.0	<1.0	<1.0	<1.0	1.0
C36-C40	<1.0	<1.0	<1.0	<1.0	1.0
C40-C44	<1.0	<1.0	<1.0	<1.0	1.0
TPH (C6-C44)	<10	<10	<10	<10	10

Surrogates

o-Terphenyl	88%	89%	91%	87%	<u>%REC Limits</u> 50-150
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Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Carbon Chain by GC/FID

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: mg/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13	
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13	
Date Analyzed:	10/03/13	10/03/13	10/03/13	10/03/13	
AA ID No:	3J01004-05	3J01004-06	3J01004-07	3J01004-08	
Client ID No:	45-V-R/R-SS-006	45-V-R/R-SS-007	45-V-R/R-SS-008	45-V-R/R-SS-009	
Matrix:	Soil	Soil	Soil	Soil	
Dilution Factor:	1	1	1	1	MRL

Carbon Chain Characterization 8015M (EPA 8015M)

C6-C8	<1.0	<1.0	<1.0	<1.0	1.0
C8-C10	<1.0	<1.0	<1.0	<1.0	1.0
C10-C12	<1.0	<1.0	<1.0	<1.0	1.0
C12-C14	<1.0	<1.0	<1.0	<1.0	1.0
C14-C16	<1.0	<1.0	<1.0	<1.0	1.0
C16-C18	<1.0	<1.0	<1.0	<1.0	1.0
C18-C20	<1.0	<1.0	<1.0	<1.0	1.0
C20-C22	<1.0	<1.0	<1.0	<1.0	1.0
C22-C24	<1.0	<1.0	<1.0	<1.0	1.0
C24-C26	<1.0	<1.0	<1.0	<1.0	1.0
C26-C28	<1.0	<1.0	<1.0	<1.0	1.0
C28-C32	<1.0	<1.0	<1.0	<1.0	1.0
C32-C34	<1.0	<1.0	<1.0	<1.0	1.0
C34-C36	<1.0	<1.0	<1.0	<1.0	1.0
C36-C40	<1.0	<1.0	<1.0	<1.0	1.0
C40-C44	<1.0	<1.0	<1.0	<1.0	1.0
TPH (C6-C44)	<10	<10	<10	<10	10

Surrogates

o-Terphenyl	91%	89%	91%	90%	<u>%REC Limits</u> 50-150
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Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Carbon Chain by GC/FID

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: mg/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13	
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13	
Date Analyzed:	10/03/13	10/03/13	10/03/13	10/03/13	
AA ID No:	3J01004-09	3J01004-10	3J01004-11	3J01004-12	
Client ID No:	45-V-R/R-SS-010	45-V-R/R-SS-011	83-V-R/R-SS-001	83-V-R/R-SS-002	
Matrix:	Soil	Soil	Soil	Soil	
Dilution Factor:	1	1	1	1	MRL

Carbon Chain Characterization 8015M (EPA 8015M)

C6-C8	<1.0	<1.0	<1.0	<1.0	1.0
C8-C10	<1.0	<1.0	<1.0	<1.0	1.0
C10-C12	<1.0	<1.0	<1.0	<1.0	1.0
C12-C14	<1.0	<1.0	<1.0	<1.0	1.0
C14-C16	<1.0	<1.0	<1.0	<1.0	1.0
C16-C18	<1.0	<1.0	<1.0	<1.0	1.0
C18-C20	<1.0	<1.0	<1.0	<1.0	1.0
C20-C22	<1.0	<1.0	<1.0	<1.0	1.0
C22-C24	<1.0	<1.0	<1.0	<1.0	1.0
C24-C26	<1.0	<1.0	<1.0	<1.0	1.0
C26-C28	<1.0	<1.0	<1.0	<1.0	1.0
C28-C32	<1.0	<1.0	<1.0	<1.0	1.0
C32-C34	<1.0	<1.0	<1.0	<1.0	1.0
C34-C36	<1.0	<1.0	<1.0	<1.0	1.0
C36-C40	<1.0	<1.0	<1.0	<1.0	1.0
C40-C44	<1.0	<1.0	<1.0	<1.0	1.0
TPH (C6-C44)	<10	<10	<10	<10	10

<u>Surrogates</u>					<u>%REC Limits</u>
o-Terphenyl	86%	90%	89%	89%	50-150

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Total Metals CAM 17

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: mg/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13
Date Analyzed:	10/02/13	10/02/13	10/02/13	10/02/13
AA ID No:	3J01004-01	3J01004-02	3J01004-03	3J01004-04
Client ID No:	45-V-R/R-SS-002	45-V-R/R-SS-003	45-V-R/R-SS-004	45-V-R/R-SS-005
Matrix:	Soil	Soil	Soil	Soil
Dilution Factor:	1	1	1	1

MRL

CAM Metals Less Hg 6000/7000 (EPA 6010B/7000)

Antimony	<10	<10	<10	<10	10
Arsenic	<0.50	1.4	1.7	<0.50	0.50
Barium	110	120	110	110	10
Beryllium	<1.0	<1.0	<1.0	<1.0	1.0
Cadmium	1.9	1.8	1.8	1.8	1.0
Chromium	14	14	14	14	3.0
Cobalt	8.7	8.9	8.5	8.7	3.0
Copper	17	16	18	34	3.0
Lead	<3.0	<3.0	<3.0	<3.0	3.0
Molybdenum	<5.0	<5.0	<5.0	<5.0	5.0
Nickel	11	11	9.9	10	3.0
Selenium	<0.50	<0.50	<0.50	<0.50	0.50
Silver	<1.0	<1.0	<1.0	<1.0	1.0
Thallium	<5.0	<5.0	<5.0	<5.0	5.0
Vanadium	39	40	38	40	10
Zinc	49	49	50	50	3.0

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Total Metals CAM 17

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: mg/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13	
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13	
Date Analyzed:	10/02/13	10/02/13	10/02/13	10/02/13	
AA ID No:	3J01004-05	3J01004-06	3J01004-07	3J01004-08	
Client ID No:	45-V-R/R-SS-006	45-V-R/R-SS-007	45-V-R/R-SS-008	45-V-R/R-SS-009	
Matrix:	Soil	Soil	Soil	Soil	
Dilution Factor:	1	1	1	1	MRL

CAM Metals Less Hg 6000/7000 (EPA 6010B/7000)

Antimony	<10	<10	<10	<10	10
Arsenic	2.8	1.8	1.6	1.3	0.50
Barium	110	120	110	120	10
Beryllium	<1.0	<1.0	<1.0	<1.0	1.0
Cadmium	1.9	2.1	1.9	2.0	1.0
Chromium	15	16	14	16	3.0
Cobalt	9.2	9.8	9.2	9.5	3.0
Copper	18	17	15	15	3.0
Lead	3.2	<3.0	<3.0	<3.0	3.0
Molybdenum	<5.0	<5.0	<5.0	<5.0	5.0
Nickel	11	12	11	12	3.0
Selenium	<0.50	<0.50	<0.50	<0.50	0.50
Silver	<1.0	<1.0	<1.0	<1.0	1.0
Thallium	<5.0	<5.0	<5.0	<5.0	5.0
Vanadium	41	42	39	41	10
Zinc	54	54	52	61	3.0

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Total Metals CAM 17

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: mg/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13	
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13	
Date Analyzed:	10/02/13	10/02/13	10/02/13	10/02/13	
AA ID No:	3J01004-09	3J01004-10	3J01004-11	3J01004-12	
Client ID No:	45-V-R/R-SS-010	45-V-R/R-SS-011	83-V-R/R-SS-001	83-V-R/R-SS-002	
Matrix:	Soil	Soil	Soil	Soil	
Dilution Factor:	1	1	1	1	MRL

CAM Metals Less Hg 6000/7000 (EPA 6010B/7000)

Antimony	<10	<10	<10	<10	10
Arsenic	1.6	2.2	1.4	1.4	0.50
Barium	98	180	100	100	10
Beryllium	<1.0	<1.0	<1.0	<1.0	1.0
Cadmium	1.8	2.7	1.7	1.7	1.0
Chromium	13	23	13	13	3.0
Cobalt	8.2	15	8.5	8.3	3.0
Copper	13	27	14	15	3.0
Lead	<3.0	3.1	<3.0	<3.0	3.0
Molybdenum	<5.0	<5.0	<5.0	<5.0	5.0
Nickel	9.3	18	9.6	9.6	3.0
Selenium	<0.50	<0.50	<0.50	<0.50	0.50
Silver	<1.0	<1.0	<1.0	<1.0	1.0
Thallium	<5.0	<5.0	<5.0	<5.0	5.0
Vanadium	37	51	35	36	10
Zinc	46	74	48	47	3.0

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Total Metals CAM 17

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: mg/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13
Date Analyzed:	10/02/13	10/02/13	10/02/13	10/02/13
AA ID No:	3J01004-01	3J01004-02	3J01004-03	3J01004-04
Client ID No:	45-V-R/R-SS-002	45-V-R/R-SS-003	45-V-R/R-SS-004	45-V-R/R-SS-005
Matrix:	Soil	Soil	Soil	Soil
Dilution Factor:	1	1	1	1

MRL

Mercury Total EPA 7470A/7471A (EPA 7471A)

Mercury	0.028	0.037	0.032	0.040	0.020
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Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Total Metals CAM 17

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: mg/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13	
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13	
Date Analyzed:	10/02/13	10/02/13	10/02/13	10/02/13	
AA ID No:	3J01004-05	3J01004-06	3J01004-07	3J01004-08	
Client ID No:	45-V-R/R-SS-006	45-V-R/R-SS-007	45-V-R/R-SS-008	45-V-R/R-SS-009	
Matrix:	Soil	Soil	Soil	Soil	
Dilution Factor:	1	1	1	1	MRL

Mercury Total EPA 7470A/7471A (EPA 7471A)

Mercury	0.064	0.042	0.046	0.036	0.020
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Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.
Method: Total Metals CAM 17

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13
Units: mg/kg

Date Sampled:	10/01/13	10/01/13	10/01/13	10/01/13
Date Prepared:	10/02/13	10/02/13	10/02/13	10/02/13
Date Analyzed:	10/02/13	10/02/13	10/02/13	10/02/13
AA ID No:	3J01004-09	3J01004-10	3J01004-11	3J01004-12
Client ID No:	45-V-R/R-SS-010	45-V-R/R-SS-011	83-V-R/R-SS-001	83-V-R/R-SS-002
Matrix:	Soil	Soil	Soil	Soil
Dilution Factor:	1	1	1	1

MRL

Mercury Total EPA 7470A/7471A (EPA 7471A)

Mercury	0.032	0.048	0.026	0.040	0.020
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Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Polychlorinated Biphenyls by GC - Quality Control

Batch B3J0201 - EPA 3550B

Blank (B3J0201-BLK1)

Prepared: 10/02/13 Analyzed: 10/03/13

Aroclor-1016	<10	10	ug/kg
Aroclor-1221	<10	10	ug/kg
Aroclor-1232	<10	10	ug/kg
Aroclor-1242	<10	10	ug/kg
Aroclor-1248	<10	10	ug/kg
Aroclor-1254	<10	10	ug/kg
Aroclor-1260	<10	10	ug/kg
Aroclor-1268	<10	10	ug/kg

Surrogate: Decachlorobiphenyl

3.02 ug/kg 2.5 121 50-150

Surrogate: Tetrachloro-meta-xylene

2.38 ug/kg 2.5 95.3 50-150

LCS (B3J0201-BS1)

Prepared: 10/02/13 Analyzed: 10/03/13

Aroclor-1016	22.8	10	ug/kg	25	91.0	60-140	40
Aroclor-1260	22.1	10	ug/kg	25	88.4	60-140	40

Surrogate: Decachlorobiphenyl

2.85 ug/kg 2.5 114 50-150

Surrogate: Tetrachloro-meta-xylene

2.34 ug/kg 2.5 93.6 50-150

LCS Dup (B3J0201-BSD1)

Prepared: 10/02/13 Analyzed: 10/03/13

Aroclor-1016	24.8	10	ug/kg	25	99.2	60-140	8.62	40
Aroclor-1260	25.4	10	ug/kg	25	102	60-140	13.9	40

Surrogate: Decachlorobiphenyl

3.14 ug/kg 2.5 126 50-150

Surrogate: Tetrachloro-meta-xylene

2.46 ug/kg 2.5 98.4 50-150

Matrix Spike (B3J0201-MS1)

Source: 3J01004-06

Prepared: 10/02/13 Analyzed: 10/03/13

Aroclor-1016	48.4	20	ug/kg	50	<20	96.8	50-150	40
Aroclor-1260	49.0	20	ug/kg	50	<20	98.0	50-150	40

Surrogate: Decachlorobiphenyl

6.28 ug/kg 5.0 126 50-150

Surrogate: Tetrachloro-meta-xylene

4.29 ug/kg 5.0 85.8 50-150

Matrix Spike Dup (B3J0201-MSD1)

Source: 3J01004-06

Prepared: 10/02/13 Analyzed: 10/03/13

Aroclor-1016	48.5	20	ug/kg	50	<20	97.0	50-150	0.206	40
Aroclor-1260	50.6	20	ug/kg	50	<20	101	50-150	3.21	40

Surrogate: Decachlorobiphenyl

5.90 ug/kg 5.0 118 50-150

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Polychlorinated Biphenyls by GC - Quality Control

Batch B3J0201 - EPA 3550B

Matrix Spike Dup (B3J0201-MSD1) **Source: 3J01004-06** Prepared: 10/02/13 Analyzed: 10/03/13
Continued

Surrogate: Tetrachloro-meta-xylene	4.17		ug/kg	5.0		83.3	50-150			
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Carbon Chain by GC/FID - Quality Control

Batch B3J0209 - EPA 3550B

Blank (B3J0209-BLK1) Prepared & Analyzed: 10/02/13

C6-C8	<1.0	1.0	mg/kg							
C8-C10	<1.0	1.0	mg/kg							
C10-C12	<1.0	1.0	mg/kg							
C12-C14	<1.0	1.0	mg/kg							
C14-C16	<1.0	1.0	mg/kg							
C16-C18	<1.0	1.0	mg/kg							
C18-C20	<1.0	1.0	mg/kg							
C20-C22	<1.0	1.0	mg/kg							
C22-C24	<1.0	1.0	mg/kg							
C24-C26	<1.0	1.0	mg/kg							
C26-C28	<1.0	1.0	mg/kg							
C28-C32	<1.0	1.0	mg/kg							
C32-C34	<1.0	1.0	mg/kg							
C34-C36	<1.0	1.0	mg/kg							
C36-C40	<1.0	1.0	mg/kg							
C40-C44	<1.0	1.0	mg/kg							
TPH (C6-C44)	<10	10	mg/kg							

Surrogate: o-Terphenyl	8.71		mg/kg	10		87.1	50-150			
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LCS (B3J0209-BS1) Prepared & Analyzed: 10/02/13

Diesel Range Organics as Diesel	200	10	mg/kg	200		100	75-125		40	
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Surrogate: o-Terphenyl	12.3		mg/kg	10		123	50-150			
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LCS Dup (B3J0209-BSD1) Prepared & Analyzed: 10/02/13

Diesel Range Organics as Diesel	200	10	mg/kg	200		99.9	75-125	0.379	40	
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Surrogate: o-Terphenyl	12.6		mg/kg	10		126	50-150			
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Matrix Spike (B3J0209-MS1) **Source: 3J01004-01** Prepared & Analyzed: 10/02/13

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Carbon Chain by GC/FID - Quality Control

Batch B3J0209 - EPA 3550B

Matrix Spike (B3J0209-MS1) Continued Source: 3J01004-01 Prepared & Analyzed: 10/02/13

Diesel Range Organics as Diesel	196	10	mg/kg	200		97.8	70-130		40	
Surrogate: o-Terphenyl	12.3		mg/kg	10		123	50-150			
Matrix Spike Dup (B3J0209-MSD1) Source: 3J01004-01										
Diesel Range Organics as Diesel	196	10	mg/kg	200		98.1	70-130	0.336	40	
Surrogate: o-Terphenyl	12.3		mg/kg	10		123	50-150			

Total Metals CAM 17 - Quality Control

Batch B3J0210 - EPA 3050B

Blank (B3J0210-BLK1)

Prepared & Analyzed: 10/02/13

Antimony	<10	10	mg/kg							
Arsenic	<0.50	0.50	mg/kg							
Barium	<10	10	mg/kg							
Beryllium	<1.0	1.0	mg/kg							
Cadmium	<1.0	1.0	mg/kg							
Chromium	<3.0	3.0	mg/kg							
Cobalt	<3.0	3.0	mg/kg							
Copper	<3.0	3.0	mg/kg							
Lead	<3.0	3.0	mg/kg							
Molybdenum	<5.0	5.0	mg/kg							
Nickel	<3.0	3.0	mg/kg							
Selenium	<0.50	0.50	mg/kg							
Silver	<1.0	1.0	mg/kg							
Thallium	<5.0	5.0	mg/kg							
Vanadium	<10	10	mg/kg							
Zinc	<3.0	3.0	mg/kg							

LCS (B3J0210-BS1)

Prepared & Analyzed: 10/02/13

Antimony	46.7	10	mg/kg	50		93.5	80-120			
Arsenic	53.4	0.50	mg/kg	50		107	80-120			
Barium	49.6	10	mg/kg	50		99.1	80-120			
Beryllium	49.9	1.0	mg/kg	50		99.8	80-120			
Cadmium	51.5	1.0	mg/kg	50		103	80-120			

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Notes
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Total Metals CAM 17 - Quality Control

Batch B3J0210 - EPA 3050B

LCS (B3J0210-BS1) Continued

Prepared & Analyzed: 10/02/13

Chromium	50.6	3.0	mg/kg	50	101	80-120
Cobalt	51.8	3.0	mg/kg	50	104	80-120
Copper	49.9	3.0	mg/kg	50	99.7	80-120
Lead	51.8	3.0	mg/kg	50	104	80-120
Molybdenum	50.6	5.0	mg/kg	50	101	80-120
Nickel	51.4	3.0	mg/kg	50	103	80-120
Selenium	51.2	0.50	mg/kg	50	102	80-120
Silver	49.6	1.0	mg/kg	50	99.2	80-120
Thallium	42.2	5.0	mg/kg	50	84.5	80-120
Vanadium	50.0	10	mg/kg	50	100	80-120
Zinc	52.4	3.0	mg/kg	50	105	80-120

LCS Dup (B3J0210-BSD1)

Prepared & Analyzed: 10/02/13

Antimony	47.3	10	mg/kg	50	94.5	80-120	1.09	20
Arsenic	53.0	0.50	mg/kg	50	106	80-120	0.753	20
Barium	49.7	10	mg/kg	50	99.4	80-120	0.252	20
Beryllium	49.7	1.0	mg/kg	50	99.3	80-120	0.462	20
Cadmium	52.0	1.0	mg/kg	50	104	80-120	0.966	20
Chromium	50.8	3.0	mg/kg	50	102	80-120	0.592	20
Cobalt	52.6	3.0	mg/kg	50	105	80-120	1.44	20
Copper	49.7	3.0	mg/kg	50	99.3	80-120	0.392	20
Lead	52.2	3.0	mg/kg	50	104	80-120	0.673	20
Molybdenum	51.6	5.0	mg/kg	50	103	80-120	2.06	20
Nickel	52.4	3.0	mg/kg	50	105	80-120	1.73	20
Selenium	52.7	0.50	mg/kg	50	105	80-120	2.99	20
Silver	49.2	1.0	mg/kg	50	98.3	80-120	0.911	20
Thallium	45.0	5.0	mg/kg	50	90.1	80-120	6.37	20
Vanadium	50.2	10	mg/kg	50	100	80-120	0.299	20
Zinc	53.4	3.0	mg/kg	50	107	80-120	1.89	20

Duplicate (B3J0210-DUP1)

Source: 3J01004-12 Prepared & Analyzed: 10/02/13

Antimony	<10	10	mg/kg	<10				40
Arsenic	1.49	0.50	mg/kg	1.38			7.30	40

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
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Total Metals CAM 17 - Quality Control

Batch B3J0210 - EPA 3050B

Duplicate (B3J0210-DUP1) Continued Source: 3J01004-12 Prepared & Analyzed: 10/02/13

Barium	104	10	mg/kg		101			2.58	40	
Beryllium	<1.0	1.0	mg/kg		<1.0				40	
Cadmium	1.73	1.0	mg/kg		1.70			1.75	40	
Chromium	13.6	3.0	mg/kg		13.4			2.04	40	
Cobalt	8.80	3.0	mg/kg		8.32			5.72	40	
Copper	15.1	3.0	mg/kg		14.7			2.75	40	
Lead	<3.0	3.0	mg/kg		<3.0				40	
Molybdenum	<5.0	5.0	mg/kg		<5.0				40	
Nickel	10.2	3.0	mg/kg		9.65			5.93	40	
Selenium	<0.50	0.50	mg/kg		<0.50				40	
Silver	<1.0	1.0	mg/kg		<1.0				40	
Thallium	<5.0	5.0	mg/kg		<5.0				40	
Vanadium	35.8	10	mg/kg		35.7			0.266	40	
Zinc	52.6	3.0	mg/kg		46.7			11.8	40	

Matrix Spike (B3J0210-MS1) Source: 3J01004-05 Prepared & Analyzed: 10/02/13

Antimony	42.0	10	mg/kg	50	<10	84.0	75-125			
Arsenic	54.0	0.50	mg/kg	50	2.84	102	75-125			
Barium	160	10	mg/kg	50	114	90.4	75-125			
Beryllium	46.3	1.0	mg/kg	50	<1.0	92.6	75-125			
Cadmium	50.8	1.0	mg/kg	50	1.90	97.8	75-125			
Chromium	65.2	3.0	mg/kg	50	15.4	99.5	75-125			
Cobalt	59.7	3.0	mg/kg	50	9.16	101	75-125			
Copper	65.5	3.0	mg/kg	50	17.8	95.4	75-125			
Lead	53.4	3.0	mg/kg	50	3.21	100	75-125			
Molybdenum	49.5	5.0	mg/kg	50	<5.0	99.0	75-125			
Nickel	60.8	3.0	mg/kg	50	10.9	99.7	75-125			
Selenium	44.6	0.50	mg/kg	50	<0.50	89.2	75-125			
Silver	47.9	1.0	mg/kg	50	<1.0	95.8	75-125			
Thallium	14.5	5.0	mg/kg	50	<5.0	29.1	60-140			
Vanadium	88.9	10	mg/kg	50	41.0	95.7	75-125			
Zinc	105	3.0	mg/kg	50	53.7	103	75-125			

QM-07

Viorel Vasile
Operations Manager

**LABORATORY ANALYSIS RESULTS**

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
Total Metals CAM 17 - Quality Control										
<i>Batch B3J0210 - EPA 3050B</i>										
Matrix Spike Dup (B3J0210-MSD1) Source: 3J01004-05 Prepared & Analyzed: 10/02/13										
Antimony	44.3	10	mg/kg	50	<10	88.6	75-125	5.32	40	
Arsenic	56.6	0.50	mg/kg	50	2.84	107	75-125	4.61	40	
Barium	160	10	mg/kg	50	114	92.2	75-125	0.562	40	
Beryllium	48.6	1.0	mg/kg	50	<1.0	97.2	75-125	4.85	40	
Cadmium	53.2	1.0	mg/kg	50	1.90	103	75-125	4.71	40	
Chromium	67.0	3.0	mg/kg	50	15.4	103	75-125	2.87	40	
Cobalt	62.2	3.0	mg/kg	50	9.16	106	75-125	4.10	40	
Copper	68.4	3.0	mg/kg	50	17.8	101	75-125	4.33	40	
Lead	56.4	3.0	mg/kg	50	3.21	106	75-125	5.37	40	
Molybdenum	52.6	5.0	mg/kg	50	<5.0	105	75-125	6.09	40	
Nickel	62.8	3.0	mg/kg	50	10.9	104	75-125	3.32	40	
Selenium	46.7	0.50	mg/kg	50	<0.50	93.4	75-125	4.62	40	
Silver	49.6	1.0	mg/kg	50	<1.0	99.2	75-125	3.45	40	
Thallium	24.5	5.0	mg/kg	50	<5.0	49.0	60-140	51.0	40	QM-07
Vanadium	90.7	10	mg/kg	50	41.0	99.3	75-125	2.00	40	
Zinc	108	3.0	mg/kg	50	53.7	108	75-125	2.39	40	

Total Metals CAM 17 - Quality Control

Batch B3J0211 - EPA 7471A Prep

Blank (B3J0211-BLK1)

Prepared & Analyzed: 10/02/13

Mercury <0.020 0.020 mg/kg

LCS (B3J0211-BS1)

Prepared & Analyzed: 10/02/13

Mercury 0.508 0.020 mg/kg 0.50 102 80-120

LCS Dup (B3J0211-BSD1)

Prepared & Analyzed: 10/02/13

Mercury 0.520 0.020 mg/kg 0.50 104 80-120 2.14 25

Duplicate (B3J0211-DUP1)

Source: 3J01004-12 Prepared & Analyzed: 10/02/13

Mercury 0.0415 0.020 mg/kg 0.0400 3.68 25

Matrix Spike (B3J0211-MS1)

Source: 3J01004-05 Prepared & Analyzed: 10/02/13

Mercury 0.552 0.020 mg/kg 0.50 0.0645 97.5 75-125

Matrix Spike Dup (B3J0211-MSD1)

Source: 3J01004-05 Prepared & Analyzed: 10/02/13

Mercury 0.561 0.020 mg/kg 0.50 0.0645 99.3 75-125 1.62 25

Viorel Vasile
Operations Manager



LABORATORY ANALYSIS RESULTS

Client: AMEC Environment & Infrastructure, Inc.
Project No: 0106270030
Project Name: Former Pechiney Cast Plate, Inc.

AA Project No: A844301
Date Received: 10/01/13
Date Reported: 10/04/13

Special Notes

[1] = QM-07 : The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

Viorel Vasile
Operations Manager

NB 27605 118169



APPENDIX B

AIS Wipe Sample Results and Locations

Wipe Samples Collected by American Integrated Services, Inc.

Lab Report Date	Sample ID	PCB Detection Result ug/100 cm2	Status	Map Location	Phase Area
9/6/2013	Wipe Sample - A	ND	Equipment Sample	N/A	N/A
9/9/2013	Wipe Sample - A	ND	Recycled	1	I
9/12/2013	Wipe Sample - A	PCB - 1248 (2.5)	Disposed	2	I
	Wipe Sample - B	ND	Recycled	3	I
9/23/2013	Area - B	ND	Recycled	4	IIB
	Area - C	PCB - 1242 (27.2)	Disposed	5	IIB
	Pipe Sample	PCB - 1242 (3.4)	Disposed	6	IIB
	A - FDC	ND	Recycled	7	IIB
10/21/2013	B - FDC	ND	Recycled	8	IIB
	H - 5	ND	Recycled	9	I
12/4/2013	H - 15	ND	Recycled	10	I
	D - 5	ND	Recycled	11	I
	D - 15	ND	Recycled	12	I
	E - 5	ND	Recycled	13	I
	E - 15	ND	Recycled	14	I
	F - 5	ND	Recycled	15	I
	F - 15	ND	Recycled	16	I
	Area - A - 1	ND	Recycled	17	I
	Area - A - 2	ND	Recycled	18	I
	Area - A - 3	ND	Recycled	19	I
	Area - C	ND	Recycled	20	IIB
	Area - P	ND	Recycled	21	I
	Stretcher Pit - 1	ND	Recycled	22	IIA
	Stretcher Pit - 2	ND	Recycled	23	IIA
2/5/2014	A - 5	ND	Recycled	24	I
	A - 10	ND	Recycled	25	I
	D - 20	ND	Recycled	26	I
	D - 25	ND	Recycled	27	IIA
	D - 30	ND	Recycled	28	IIA
	E - 20	ND	Recycled	29	I
	E - 25	ND	Recycled	30	IIA
	E - 30	ND	Recycled	31	IIA
	F - 20	ND	Recycled	32	I
	F - 25	ND	Recycled	33	IIA
	F - 30	ND	Recycled	34	IIA
	G - 20	ND	Recycled	35	I
	G - 25	ND	Recycled	36	IIA
	G - 30	ND	Recycled	37	IIA
	Substation #1	ND	Recycled	38	I
2/20/2014	Pipe Sample to Fruitland	1.76 (PCB-1248)	Left in place	39	I
	Draw Bench - B	ND	Recycled	41	IIA
	Draw Bench - C	ND	Recycled	42	IIA
	Trench Rack - A	0.43 (PCB-1248)	Disposed	43	I
	Trench Rack - B	0.96 (PCB-1248)	Disposed	44	I
	Trench Rack - C	0.34 (PCB-1248)	Disposed	45	I
	Line C	ND	Recycled	46	IIB
	Row 45	ND	Recycled	47	IIB
	A - 20	ND	Recycled	48	I
	A - 25	ND	Recycled	49	IIB
All samples from 4A/4B					
4/1/2014	1	1.82 (PCB-1248)	Disposed	50	IIB
	2	1.25 (PCB-1248)	Disposed	51	IIB
	3	1.55 (PCB-1248)	Disposed	52	IIB
	4	1.89 (PCB-1248)	Disposed	53	IIB
	5	6.11 (PCB-1248)	Disposed	54	IIB
	6	1.79 (PCB-1248)	Disposed	55	IIB
	7	2.18 (PCB-1248)	Disposed	56	IIB
	8	0.38 (PCB-1248)	Disposed	57	IIB
	9	2.21 (PCB-1248)	Disposed	58	IIB
	10	0.25 (PCB-1248)	Disposed	59	IIB
	11	0.78 (PCB-1248)	Disposed	60	IIB
	12	0.11 (PCB-1248)	Disposed	61	IIB
	13	1.52 (PCB-1248)	Disposed	62	IIB
6/9/2014	E-40	ND	Recycled	63	IIA
	E-50	ND	Recycled	64	IV
	F-40	ND	Recycled	65	IIA
	F-50	ND	Recycled	66	IV
	G-40	ND	Recycled	67	IIA
	G-50	ND	Recycled	68	IV
6/16/2014	D-40	ND	Recycled	70	IIA
	D-50	ND	Recycled	71	IV
	D-60	ND	Recycled	72	IV
	E-60	ND	Recycled	73	IV
	F-60	ND	Recycled	74	IV
	G-60	ND	Recycled	75	IV
	H-30	ND	Recycled	76	IIA
	Cooling Tower-1	ND	Disposed	77	III
	Cooling Tower-2	0.815 (PCB-1248)	Disposed	78	III
	Cooling Tower-3	ND	Disposed	79	III
	Row 65 Pipe-1	ND	Recycled	80	IV
	Row 65 Pipe-2	ND	Recycled	81	IV
	Row 69 Pipe-1	ND	Recycled	82	IV
	Row 69 Pipe-2	ND	Recycled	83	IV
	Row 69 Pipe-3	ND	Recycled	84	III

Notes

N/A = Not applicable

ND = Not Detected

ug/100 cm2 = micrograms per 100 centimeters squared

EPA Method 8082

Wipe Samples Collected by American Integrated Services, Inc.

Lab Report Date	Sample ID	PCBs 1248	PCBs 1260	Status	Map Location	Phase Area
6/26/2014	Boyle Pipe-1	ND	ND	Disposed	85	III
	Boyle Pipe-2	ND	ND	Disposed	86	III
	Boyle Pipe-3	99.2	4.26	Disposed	87	III
	Boyle Pipe-4	ND	ND	Disposed	88	III
	Boyle Pipe-5	363	6.91	Disposed	89	IIB
	Boyle Pipe-6	6.41	ND	Disposed	90	IIB
	Boyle Pipe-7	182	6.34	Disposed	91	IIB
	Boyle Pipe-8	122	3.18	Disposed	92	IIB
	Boyle Pipe-9	7.49	ND	Disposed	93	IIB
	Boyle Pipe-10	1.72	ND	Disposed	94	IIB
	Boyle Pipe-11	1.65	ND	Disposed	95	IIB
	Boyle Pipe-12	ND	ND	Disposed	96	IIB
	Boyle Pipe-13	ND	ND	Disposed	97	IIB
	Boyle Pipe-14	ND	ND	Disposed	98	IIB
	Cooling Tower-1	ND	ND	Disposed	99	III
	Cooling Tower-2	ND	ND	Disposed	100	III
	Parcel 6-1	ND	ND	Recycled	101	V
	Parcel 6-2	ND	ND	Recycled	102	V
	Parcel 6-3	ND	ND	Recycled	103	V
	Parcel 6-4	ND	ND	Recycled	104	V
	Parcel 6-5	ND	ND	Recycled	105	V
	RR Tracks-1	ND	ND	Recycled	106	RR SPUR
	RR Tracks-2	ND	ND	Recycled	107	RR SPUR
	RR Tracks-3	ND	ND	Recycled	108	RR SPUR
	RR Tracks-4	ND	ND	Recycled	109	RR SPUR
	RR Tracks-5	ND	ND	Recycled	110	RR SPUR
	RR Tracks-6	ND	ND	Recycled	111	RR SPUR
	RR Tracks-7	ND	ND	Recycled	112	RR SPUR
	RR Tracks-8	ND	ND	Recycled	113	V
	RR Tracks-9	ND	ND	Recycled	114	V
	RR Tracks-10	ND	ND	Recycled	115	V
7/10/2014	Phase IV-1	ND	ND	Recycled	116	IIA
	Phase IV-2	ND	ND	Recycled	117	IIA
	Phase IV-3	ND	ND	Recycled	118	IIA
	Phase IV-4	ND	ND	Recycled	119	IIA
	Phase IV-5	ND	ND	Recycled	120	IIA
	Phase IV-6	ND	ND	Recycled	121	IIA
	Phase IV-7	ND	ND	Recycled	122	IV
	Phase IV-8	ND	ND	Recycled	123	IV
	Phase IV-9	ND	ND	Recycled	124	IV
	Phase IV-10	ND	ND	Recycled	125	IV
	Phase IV-11	ND	ND	Recycled	126	IV
	Phase IV-12	ND	ND	Recycled	127	IV
	Phase IV-13	ND	ND	Recycled	128	IV
	Phase IV-14	ND	ND	Recycled	129	IV
	Phase IV-15	ND	ND	Recycled	130	IV
	Phase V-1	ND	ND	Recycled	131	V
	Phase V-2	ND	ND	Recycled	132	V
	Phase V-3	ND	ND	Recycled	133	V
	Phase V-4	ND	ND	Recycled	134	V
	Phase V-5	ND	ND	Recycled	135	V
	FDC1-1	ND	ND	Recycled	136	IIB
	FDC1-2	ND	ND	Recycled	137	IIB
	FDC4-1	ND	ND	Recycled	138	IIB
	FDC4-2	ND	ND	Recycled	139	IIB

Notes

N/A = Not applicable

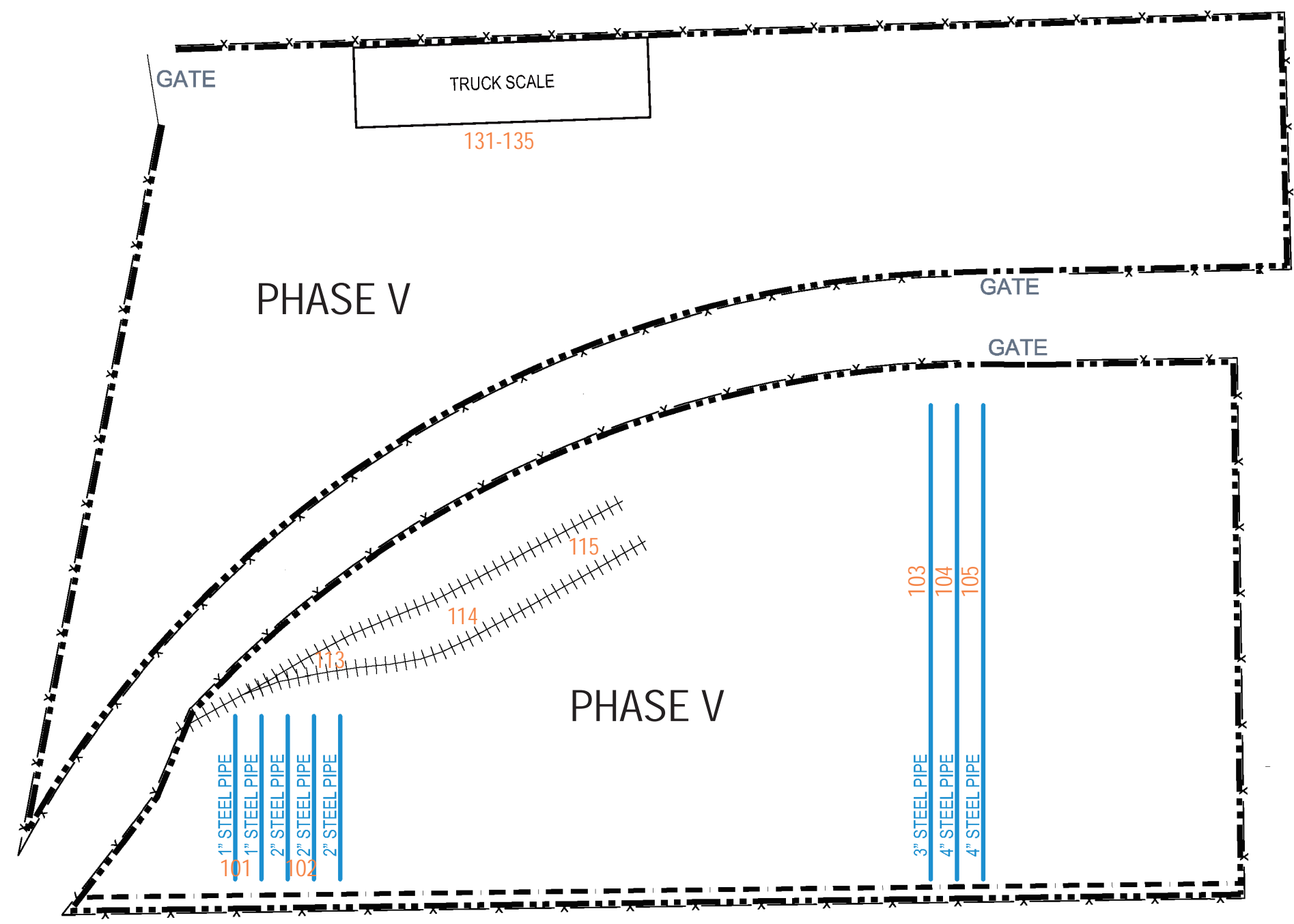
ND = Not Detected

ug/100 cm² = micrograms per 100 centimeters squared

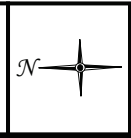
EPA Method 8082

LEGEND

— REMOVED PIPE



PHASE V - PIPE REMOVALS
BELOW GRADE DEMOLITION & SOIL EXCAVATION
PECHINEY CAST PLATE, INC., FACILITY
3200 FRUITLAND AVENUE, VERNON, CALIFORNIA



DRAWN BY: CY
APPROVED BY: CP
DATE: 09/12/14

 **American Integrated Services, Inc.**
P.O. BOX 92316, LONG BEACH, CA 90809-2316 (310) 522-1168 FAX (310) 522-0474



Alpha Scientific Corporation

Environmental Laboratories

Client: American Integrated Services
 Project: Pechiney/33210
 Project Site: 3200 Fruitland Ave., Vernon, CA 90058
 Matrix: Wipe sample
 Extraction Method: EPA 3550B
 Batch No. AF29-PCBS1

Lab Job No.: A406090
 Date Sampled: 06-26-2014
 Date Received: 06-26-2014
 Date Extracted: 06-26-2014
 Date Analyzed: 06-29-2014
 Date Reported: 07-02-2014

EPA 8082 (PCB's)

Reporting Units: $\mu\text{g}/100 \text{ cm}^2$

Sample ID	Lab ID	DF	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
Method Detect. Limit (MDL)			0.1	0.2	0.1	0.1	0.1	0.1	0.1
Method Blank		1	ND	ND	ND	ND	ND	ND	ND
Boyle Pipe-1	A406090-1	1	ND	ND	ND	ND	ND	ND	ND
Boyle Pipe-2	A406090-2	1	ND	ND	ND	ND	ND	ND	ND
Boyle Pipe-3	A406090-3	20	ND	ND	ND	ND	99.2	ND	4.26
Boyle Pipe-4	A406090-4	1	ND	ND	ND	ND	ND	ND	ND
Boyle Pipe-5	A406090-5	50	ND	ND	ND	ND	363	ND	6.91
Boyle Pipe-6	A406090-6	1	ND	ND	ND	ND	6.41	ND	ND
Boyle Pipe-7	A406090-7	20	ND	ND	ND	ND	182	ND	6.34
Boyle Pipe-8	A406090-8	10	ND	ND	ND	ND	122	ND	3.18
Boyle Pipe-9	A406090-9	1	ND	ND	ND	ND	7.49	ND	ND
Boyle Pipe-10	A406090-10	1	ND	ND	ND	ND	1.72	ND	ND
Boyle Pipe-11	A406090-11	1	ND	ND	ND	ND	1.65	ND	ND
Boyle Pipe-12	A406090-12	1	ND	ND	ND	ND	ND	ND	ND
Boyle Pipe-13	A406090-13	1	ND	ND	ND	ND	ND	ND	ND
Boyle Pipe-14	A406090-14	1	ND	ND	ND	ND	ND	ND	ND
Cooling Tower-1	A406090-15	1	ND	ND	ND	ND	ND	ND	ND
Cooling Tower-2	A406090-16	1	ND	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit;
 DF=Dilution Factor;

MB=Method Blank;
 ND=Not Detected (below $\text{DF} \times \text{MDL}$).



Alpha Scientific Corporation

Environmental Laboratories

Client: American Integrated Services
Project: Pechiney/33210
Project Site: 3200 Fruitland Ave., Vernon, CA 90058
Matrix: Wipe sample
Extraction Method: EPA 3550B
Batch No. AF29-PCBS1/AF29-DS2

Lab Job No.: A406090
Date Sampled: 06-26-2014
Date Received: 06-26-2014
Date Extracted: 06-26-2014
Date Analyzed: 06-29/30-2014
Date Reported: 07-02-2014

EPA 8082 (PCB's)

Reporting Units: $\mu\text{g}/100 \text{ cm}^2$

Sample ID	Lab ID	DF	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
Method Detect. Limit (MDL)			0.1	0.2	0.1	0.1	0.1	0.1	0.1
Method Blank		1	ND	ND	ND	ND	ND	ND	ND
Parcel 6-1	A406090-17	1	ND	ND	ND	ND	ND	ND	ND
Parcel 6-2	A406090-18	1	ND	ND	ND	ND	ND	ND	ND
Parcel 6-3	A406090-19	1	ND	ND	ND	ND	ND	ND	ND
Parcel 6-4	A406090-20	1	ND	ND	ND	ND	ND	ND	ND
Parcel 6-5	A406090-21	1	ND	ND	ND	ND	ND	ND	ND
Rail Road Tracks-1	A406090-22	1	ND	ND	ND	ND	ND	ND	ND
Rail Road Tracks-2	A406090-23	1	ND	ND	ND	ND	ND	ND	ND
Rail Road Tracks-3	A406090-24	1	ND	ND	ND	ND	ND	ND	ND
Rail Road Tracks-4	A406090-25	1	ND	ND	ND	ND	ND	ND	ND
Rail Road Tracks-5	A406090-26	1	ND	ND	ND	ND	ND	ND	ND
Rail Road Tracks-6	A406090-27	1	ND	ND	ND	ND	ND	ND	ND
Rail Road Tracks-7	A406090-28	1	ND	ND	ND	ND	ND	ND	ND
Rail Road Tracks-8	A406090-29	1	ND	ND	ND	ND	ND	ND	ND
Rail Road Tracks-9	A406090-30	1	ND	ND	ND	ND	ND	ND	ND
Rail Road Tracks-10	A406090-31	1	ND	ND	ND	ND	ND	ND	ND
Trip Blank	A406090-32	1	ND	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit;
DF=Dilution Factor;

MB=Method Blank;
ND=Not Detected (below $\text{DF} \times \text{MDL}$).



Alpha Scientific Corporation

Environmental Laboratories

07-02-2014

EPA 8082 Batch QA/QC Report

Client: American Integrated Services
Project: Pechiney/33210
Matrix: Solid
Batch No. AF29-PCBS1

Lab Job No: A406090
Lab Sample ID: SW406029-1
Date Analyzed: 06-29-2014

I. MS/MSD Report Unit: ppm

Analyte	Method Blank	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1016	ND	0.5	0.536	0.542	107.2	108.4	1.1	30	46-127
1260	ND	0.5	0.497	0.488	99.4	97.6	1.8	30	31-134

II. LCS Result Unit: ppm

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
1016	0.512	0.5	102.4	80-120
1260	0.572	0.5	114.4	80-120

ND:Not Detected (at the specified limit).



Alpha Scientific Corporation
Environmental Laboratories

07-02-2014

EPA 8082
Batch QA/QC Report

Client: American Integrated Services
Project: Pechiney/33210
Matrix: Solid
Batch No. AF29-PCBS2

Lab Job No: A406090
Lab Sample ID: SW406029-2
Date Analyzed: 06-30-2014

I. MS/MSD Report
Unit: ppm

Analyte	Method Blank	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1016	ND	0.5	0.584	0.576	116.8	115.2	1.4	30	46-127
1260	ND	0.5	0.551	0.531	110.2	106.2	3.7	30	31-134

II. LCS Result
Unit: ppm

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
1016	0.559	0.5	111.8	80-120
1260	0.505	0.5	101.0	80-120

ND:Not Detected (at the specified limit).

ALPHA SCIENTIFIC CORPORATION CHAIN OF CUSTODY RECORD

Page 1 of 2
Lab Job Number A406090

Client: American Integrated Services, Inc.				Analyses Requested										T.A.T. Requested													
Address: 1502 E. Opp St., Wilmington, CA 90744														<input type="checkbox"/> Rush 8 12 24 hrs <input type="checkbox"/> 2-3 days <input checked="" type="checkbox"/> Normal													
Report Attention: C. PELAYO		Phone: 310-522-1168		Fax: 310-522-0474		Sampled by: PELAYO										Sample Condition											
Project Name/No.: PELINEY/3320		Project Site: 3200 FRUITLAND AVE, VERBENA CA 90056														<input type="checkbox"/> Chilled <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Sample seals											
Client Sample ID		Lab Sample ID		Sample Collect		Matrix Type		Sample Preserv		No. type & size of container		8015M (Gasoline)		8015M (Diesel)		8260B (BTEX, Oxygenates)		8260B (VOCs)		8270C (SVOCs)		CAM Metals		8082 (PCBs)		Remark	
Boyle Pre - 1		A406090-1		6/20		0800		WTFE		1, 20 ml																	
-2		-2				0805				1, 20 ml																	
-3		-3				0810																					
-4		-4				0815																					
-5		-5				0820																					
-6		-6				0825																					
-7		-7				0830																					
-8		-8				0835																					
-9		-9				0840																					
-10		-10				0845																					
-11		-11				0850																					
-12		-12				0855																					
-13		-13				0900																					
-14		-14				0905																					
-15		-15				0910																					
-16		-16				0915																					
Cooling box - 1																											
TOP BLACK																											
Relinquished by: [Signature]		Company: AHS		Date: 6/20		Time: 5:15		Received by: [Signature]		Company: ASC		Date: 6/21/12		Time: 5:15pm		Container types: M=Metal Tube, A=Air Bag, G=Glass bottle, P=Plastic bottle, V=VOA vial											

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

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Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION

CHAIN OF CUSTODY RECORD

Page 1 of 2

Lab Job Number **A406090**

Client: American Integrated Services, Inc.		Address: 1502 E. Opp St., Wilmington, CA 90744		Phone: 310-522-1168		Fax: 310-522-0474		Sampled by: PEAVO							
Report Attention: C. PEAVO		Project Name/No: REPAIR 133210		Project Site: 3200 FRUITLAND AVE, VERDON CA 90058											
Client Sample ID	Lab Sample ID	Sample Collect Date	Time	Matrix Type	Sample Preserv	No., type & size of container	8015M (Gasoline)	8015M (Diesel)	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Analyses Requested	T.A.T. Requested
Coca-Cola Taster-2	A406090-16	6/26/14	1005	WIRE		1, 20mg									<input type="checkbox"/> Rush 8 12 24 hrs
PARCEL 6 - 1	-17		1010										X		<input type="checkbox"/> 2-3 days
-2	-18		1015										X		<input checked="" type="checkbox"/> Normal
-3	-19		1020										X		Sample Condition
-4	-20		1025										X		<input type="checkbox"/> Chilled
-5	-21		1030										X		<input type="checkbox"/> Sample seals
RAILROAD TRACKS - 1	-22		1035										X		Remark
-2	-23		1040										X		
-3	-24		1045										X		
-4	-25		1050										X		
-5	-26		1055										X		
-6	-27		1100										X		
-7	-28		1105										X		
-8	-29		1110										X		
-9	-30		1115										X		
-10	-31		1120										X		
Relinquished by: [Signature]	Company: AKS	Date: 6/26/14	Time: 5:15	Received by: [Signature]	Company: AKS	Date: 6/26/14	Time: 5:15	Container types: M=Metal Tube, P=Plastic bottle, A=Air Bag, G=Glass bottle, V=VOA vial							

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Cerritos, CA 90703

Email: ascorp@verizon.net
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Distribution: WHITE with report, PINK to courier.



Alpha Scientific Corporation
Environmental Laboratories

07-16-2014

Mr. Carlos Pelayo
American Integrated Services
1502 E. Opp Street
Wilmington, CA 90744

Project: Pechiney/33210
Project Site: 3200 Fruitland Ave., Vernon, CA 90058
Sample Date: 07-10-2014
Lab Job No.: A407025

Dear Mr. Pelayo:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation on 07-10-2014 and analyzed by the following EPA methods:

EPA 8082 (PCBs)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions and with a chain of custody record attached.

Alpha Scientific Corporation is a CA DHS certified laboratory (Certificate Number 2633). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph.D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



Alpha Scientific Corporation

Environmental Laboratories

Client: American Integrated Services
Project: Pechiney/33210
Project Site: 3200 Fruitland Ave., Vernon, CA 90058
Matrix: Wipe sample
Extraction Method: EPA 3550B
Batch No. AG11-PCBS1

Lab Job No.: A407025
Date Sampled: 07-10-2014
Date Received: 07-10-2014
Date Extracted: 07-10-2014
Date Analyzed: 07-11-2014
Date Reported: 07-16-2014

EPA 8082 (PCB's)
Reporting Units: $\mu\text{g}/100 \text{ cm}^2$

Sample ID	Lab ID	DF	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
Method Detect. Limit (MDL)			0.1	0.2	0.1	0.1	0.1	0.1	0.1
Method Blank		1	ND	ND	ND	ND	ND	ND	ND
Phase IV-1	A407025-1	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-2	A407025-2	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-3	A407025-3	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-4	A407025-4	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-5	A407025-5	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-6	A407025-6	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-7	A407025-7	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-8	A407025-8	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-9	A407025-9	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-10	A407025-10	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-11	A407025-11	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-12	A407025-12	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-13	A407025-13	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-14	A407025-14	1	ND	ND	ND	ND	ND	ND	ND
Phase IV-15	A407025-15	1	ND	ND	ND	ND	ND	ND	ND
Trip Blank	A407025-16	1	ND	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit;
DF=Dilution Factor;

MB=Method Blank;
ND=Not Detected (below $\text{DF} \times \text{MDL}$).



Alpha Scientific Corporation

Environmental Laboratories

Client: American Integrated Services
Project: Pechiney/33210
Project Site: 3200 Fruitland Ave., Vernon, CA 90058
Matrix: Wipe sample
Extraction Method: EPA 3550B
Batch No. AG11-PCBS1/AG11-PCBS2

Lab Job No.: A407025
Date Sampled: 07-10-2014
Date Received: 07-10-2014
Date Extracted: 07-10-2014
Date Analyzed: 07-11/12-2014
Date Reported: 07-16-2014

EPA 8082 (PCB's)
Reporting Units: $\mu\text{g}/100 \text{ cm}^2$

Sample ID	Lab ID	DF	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
Method Detect. Limit (MDL)			0.1	0.2	0.1	0.1	0.1	0.1	0.1
Method Blank		1	ND	ND	ND	ND	ND	ND	ND
Phase V-1	A407025-17	1	ND	ND	ND	ND	ND	ND	ND
Phase V-2	A407025-18	1	ND	ND	ND	ND	ND	ND	ND
Phase V-3	A407025-19	1	ND	ND	ND	ND	ND	ND	ND
Phase V-4	A407025-20	1	ND	ND	ND	ND	ND	ND	ND
Phase V-5	A407025-21	1	ND	ND	ND	ND	ND	ND	ND
FDC1-1	A407025-22	1	ND	ND	ND	ND	ND	ND	ND
FDC1-2	A407025-23	1	ND	ND	ND	ND	ND	ND	ND
FDC4-1	A407025-24	1	ND	ND	ND	ND	ND	ND	ND
FDC4-2	A407025-25	1	ND	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit;
DF=Dilution Factor;

MB=Method Blank;
ND=Not Detected (below $\text{DF} \times \text{MDL}$).



Alpha Scientific Corporation
Environmental Laboratories

07-16-2014

EPA 8082
Batch QA/QC Report

Client: American Integrated Services
Project: Pechiney/33210
Matrix: Solid
Batch No. AG11-PCBS1

Lab Job No: A407025
Lab Sample ID: SW407011-1
Date Analyzed: 07-11-2014

I. MS/MSD Report
Unit: ppm

Analyte	Method Blank	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1016	ND	0.5	0.577	0.582	115.4	116.4	0.9	30	46-127
1260	ND	0.5	0.516	0.519	103.2	103.8	0.6	30	31-134

II. LCS Result
Unit: ppm

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
1016	0.560	0.5	112.0	80-120
1260	0.492	0.5	98.4	80-120

ND: Not Detected (at the specified limit).



Alpha Scientific Corporation
Environmental Laboratories

07-16-2014

EPA 8082
Batch QA/QC Report

Client: American Integrated Services
Project: Pechiney/33210
Matrix: Solid
Batch No. AG11-PCBS2

Lab Job No: A407025
Lab Sample ID: SW407011-2
Date Analyzed: 07-12-2014

I. MS/MSD Report

Unit: ppm

Analyte	Method Blank	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1016	ND	0.5	0.574	0.582	114.8	116.4	1.4	30	46-127
1260	ND	0.5	0.536	0.542	107.2	108.4	1.1	30	31-134

II. LCS Result

Unit: ppm

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
1016	0.595	0.5	119.0	80-120
1260	0.577	0.5	115.4	80-120

ND:Not Detected (at the specified limit).

Client: American Integrated Services, Inc.				Analyses Requested				T.A.T. Requested						
Address: 1502 E. Opp St., Wilmington, CA 90744								<input type="checkbox"/> Rush 8 12 24 hrs <input type="checkbox"/> 2-3 days <input checked="" type="checkbox"/> Normal						
Report Attention: C. VELAZO		Phone: 310-522-1168		Fax: 310-522-0474		Sampled by: VELAZO		Sample Condition						
Project Name/No: PECHINEY 133210		Project Site: 3200 FRUITLAND AVE, VERANO CA 90058						<input type="checkbox"/> Chilled <input checked="" type="checkbox"/> Ambient <input type="checkbox"/> Sample seals						
Client Sample ID	Lab Sample ID	Sample Collect Date	Sample Collect Time	Matrix Type	Sample Preserv	No., type* & size of container	8015M (Gasoline)	8015M (Diesel)	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Remark
Phase 1 - 1	A407025-1	7/10/14	900	WTE		1, 20mlg							X	
- 2	- 2	"	905										X	
- 3	- 3		910										X	
- 4	- 4		915										X	
- 5	- 5		920										X	
- 6	- 6		925										X	
- 7	- 7		930										X	
- 8	- 8		935										X	
- 9	- 9		940										X	
- 10	- 10		945										X	
- 11	- 11		950										X	
- 12	- 12		955										X	
- 13	- 13		1000										X	
- 14	- 14		1005										X	
- 15	- 15		1010										X	
- 16	- 16		1015										X	
TER BLACK														
Relinquished by: Jonathan Rotundo	Company: ARS	Date: 7/10	Time: 500	Received by: J. Velazo	Company: ARS	Date: 7/10/14	Time: 5:00pm	Container types: M=Metal Tube A=Air Bag G=Glass bottle V=VOA vial						

CHAIN OF CUSTODY RECORD

Client:						American Integrated Services, Inc.									
Address						1502 E. Opp St., Wilmington, CA 90744									
Report Attention		Phone		Fax	Sampled by										
C. PELAYO		310-522-1168		310-522-0474	PCLAYU										
Project Name/No.		Project Site		Sample Collect		Matrix Type		Sample Preserv	No. type & size of container						
PECHINEY 13320		3300 FRUITLAND AVE, VERBONA CA 90058		Date	Time										
PURSER - 1	A407025-17	1100	WIRE												
-2	-18	1105													
-3	-19	1110													
-4	-22	1115													
-5	-21	1120													
FDL 1-1	-22	1125													
-2	-23	1130													
FDL 4-1	-24	1135													
-2	-25	1140													

Relinquished by		Company	Date	Time	Received by	Company	Date	Time
		AKS	7/10	500		KSC	7/10	5:00

Analyses Requested		Date		Time	
8015M (Gasoline)					
8015M (Diesel)					
8260B (BTX, Oxygenates)					
8260B (VOCs)					
8270C (SVOCs)					
CAM Metals					
8082 (PCBs)					

T.A.T. Requested	
<input checked="" type="checkbox"/> Rush 8 12 24 hrs	
<input checked="" type="checkbox"/> 2-3 days	Normal

Sample Condition	
<input checked="" type="checkbox"/> Chilled	Intact
<input checked="" type="checkbox"/> Sample seals	

Remark	

Lab Job Number **A407025**

Container types: M=Metal Tube, P=Plastic bottle, A=Air Bag, G=Glass bottle, V=VOA vial

**Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703**

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

APPENDIX C

NORM Report

6397 Nancy Ridge Drive
San Diego, CA. 92121

Phone: 858-558-6736
Fax: 858-558-6756



**Occupational
Services, Inc.**

Report ID Number: AIS-OSI-2014-4-14, Rev 0

**Title: Unknown Isotopic Identification and Quantification
American Integrated Services
1502 E. Opp Street
Willmington, CA 90744-3927**

Date Prepared: April 17, 2014

Prepared By:

Linda Bray

Linda Bray, Senior Health Physicist, CHP

Nicola Rinaldi

Nicola Rinaldi, Senior Health Physicist

**Occupational Services, Inc. (OSI)
6397 Nancy Ridge Drive
San Diego, CA 92121
619-252-2211**

Reviewed By:

David Herrera

Purpose:

OSI performed on-site surveys on six selected sample bricks located at 3200 Fruitland Avenue (corner of Boyle and Fruitland) in Vernon, California. The material and items were identified as potentially radioactive by American Integrated Services based on the appearance of the bricks and prior experience at the site. The onsite analysis work was performed on April 14, 2014 and was followed up by laboratory analysis at Occupational Services Inc. (OSI) facility at 6397 Nancy Ridge Dr., San Diego CA. OSI weighed, photographed, inspected, sampled, analyzed and surveyed the material to validate the assessments.

The purpose of the analysis was to identify the type of radioactive materials present, determine if the material is considered naturally occurring (pipe scale, rocks, etc.), technically enhanced or byproduct material, and estimate the quantity of radioactive material present for disposal purposes.

Scope:

The scope of the analysis involved materials contained in six separate sample bricks identified by American Integrated Services and provided to OSI for evaluation. This project was limited to identification of radioactive material, and estimation of gross quantity. No specific recommendations or preparation for disposal was included. However, information on regulatory licensing status, and potential options for disposal are provided for selected items where appropriate.

Background

Refractory brick with low levels of naturally occurring radioactive materials had been previously identified at the Fruitland site. Refractory brick can withstand extremely high temperatures and is used to build steel and glass furnaces. The brick is made by fusing zircon sand with alumina and sodium carbonate. The minerals used to make the bricks contain low levels of naturally occurring uranium and thorium. Typical activities in the minerals used to make the bricks range from 1 to 10 Bq/g Uranium (U-238 and daughter products) and 0.2 to 10 Bq/g Thorium (Th-232 and daughter products). This would equate to 27 to 270 pCi/g of Uranium and 5 to 270 pCi/g of Thorium. The radioactive material in the raw minerals is assumed to be in secular equilibrium prior to processing to make the finished bricks. The finished bricks can be expected to contain similar levels of radioactive materials as the raw minerals excluding the more volatile radionuclides which may be removed when the zircon is fused. Based on information from reference 4 the volatile daughter products of U-238 (Ra-226, Pb-210, Po-210) are more likely to be removed during the zircon processing resulting in lower activities of these Uranium decay products relative to Thorium.

The site where the bricks were located previously contained furnaces used to recycle aluminum, and earlier excavations of the furnaces indicated low levels of radioactive material in the bricks, primarily Thorium. American Integrated Services identified similar bricks during a recent excavation and requested OSI to analyze the material and confirm if the bricks contained radioactive material.

The bricks identified for the current evaluation had a slightly different appearance than the earlier set of bricks and included a larger variation in color and aggregate composition.

Methodology and Assumptions:

OSI used the following instruments to make assessments of the material.

- S.E. International URSA-II Universal Radiation Spectrum Analyzer (Multichannel Analyzer - MCA) s/n 200177 and an Alpha Spectra, Inc. 2" Flat Sodium Iodide Scintillation Detector s/n 062310AH were used to make the radionuclide identification. The MCA was calibrated with NIST-traceable Ra-226 source (S/N 909-98) and energy tested with additional reference sources of Cs-137 and Co-60.
- Ludlum Model 3, S/N 122603 with a Ludlum Model 44-10 two-inch diameter sodium iodine scintillation detector, S/N 91825 for localization of radioactivity
- RadEye PRD, S/N 30401 for low level dose rate measurements.

Six bricks were selected at random from two piles of bricks at the excavation site. The bricks were intact and of similar shape and size. However, the bricks varied in appearance from beige to red, and in terms of the internal aggregate size and composition. The red bricks were similar to each other in color, strength or hardness and internal structure. The beige bricks ranged from a pale beige to a more yellow external coloring, and varied in the internal composition from a larger aggregate to a smoother texture.

The count rate surveys were performed on contact with each brick with the Model 3 and the 44-19 NaI detector to assess general activity levels. A dose rate survey with the RadEye PRD was also performed on contact with each brick. Samples of the brick were taken back to OSI's facility for an MCA analysis to determine the gamma emitting isotopic composition. Portions of the brick were crushed to place into a Marinelli beaker for isotopic analysis. Comparison of the assessed isotopic composition and activity levels relative to expected quantities based on historical information was also performed. The activity in the sample was estimated from the weight of the sample, historical information regarding maximum percent concentration of radioactive material and the MCA analysis.

For disposal purposes the activities are provided in pCi/g. The estimated activity concentration of Th-232 and U-238 in the raw minerals used to make the brick from historical records is 5 to 270 pCi/g and 80 to 270 pCi/g respectively. Refractory brick if present is expected to contain activity in the range of 5 to 270 pCi/g of Thorium products and 1 to 20 pCi/g of Uranium products due to evolution of the Ra-226, Pb-210 and Po-210 during processing.



Figure 1 and 2: Brick piles at the site




Figure 3 and 4: Beige bricks and red bricks



Results:

The background count rate on the Ludlum Model 3 with the Ludlum model 44-10 Sodium Iodide detector was approximately 3,000 to 5,000 cpm. The count rate on each of the bricks was approximately 4,000 to 5,000 cpm. The background dose rate on the RadEye PRD was approximately 4 uR/hr. The dose rate on each of the bricks was approximately 4 uR/hr. The direct survey methods did not indicated detectable levels of radioactive material in the bricks. The MCA results indicated Uranium and Thorium daughter products. Results of the evaluation are included in Table 1 below.

The samples of crushed brick were analyzed with the MCA system using a 20 minute count. The values for Thorium were based on the average of the concentrations determined from the peak activities of Bi-212 and Pb-212. The concentration for Uranium was based on the average concentrations determined from the peak activities for Pb-214 and Bi-214. If no peaks were identified for the daughter products in the sample the concentration was estimated from the minimum detectable concentration (MDC) in the channels where the peaks would have been located. The results were then compared to the expected concentration ranges specified in the references to verify consistency. Results of the evaluation are included in Table 1 below.

Table 1

Sample Number	Description	Isotope	Activity pCi/g	Weight of Material grams	TENORM	Photo & Description
1	Beige brick. No detectable activity above background was noted with the Model 3 & Nal detector or the PRD	Uranium and Thorium daughter products identified with MCA.	5.6 pCi/g Uranium 7.6 pCi/g Thorium	461	Yes	

Sample Number	Description	Isotope	Activity pCi/g	Weight of Material grams	TENORM	Photo & Description
2	Red brick. No detectable activity above background was noted with the Model 3 & NaI detector or the PRD	Uranium and Thorium daughter products identified with MCA.	2.8 pCi/g Uranium 2.7 pCi/g Thorium	570	Yes	
3	Red brick. No detectable activity above background was noted with the Model 3 & NaI detector or the PRD	Uranium and Thorium daughter products identified with MCA.	2.5 pCi/g Uranium 2.8 pCi/g Thorium	543	Yes	

Sample Number	Description	Isotope	Activity pCi/g	Weight of Material grams	TENORM	Photo & Description
4	Beige brick. No detectable activity above background was noted with the Model 3 & NaI detector or the PRD	Uranium and Thorium daughter products identified with MCA.	2.5pCi/g Uranium 2.7 pCi/g Thorium	624	Yes	
5	Beige brick. No detectable activity above background was noted with the Model 3 & NaI detector or the PRD	Uranium and Thorium daughter products identified with MCA.	1.9pCi/g Uranium 2.7 pCi/g Thorium	531	Yes	
6	Beige brick. No detectable activity above background was noted with the Model 3 & NaI detector or the PRD	Uranium and Thorium daughter products identified with MCA.	1.9pCi/g Uranium 2.5 pCi/g Thorium	712	Yes	

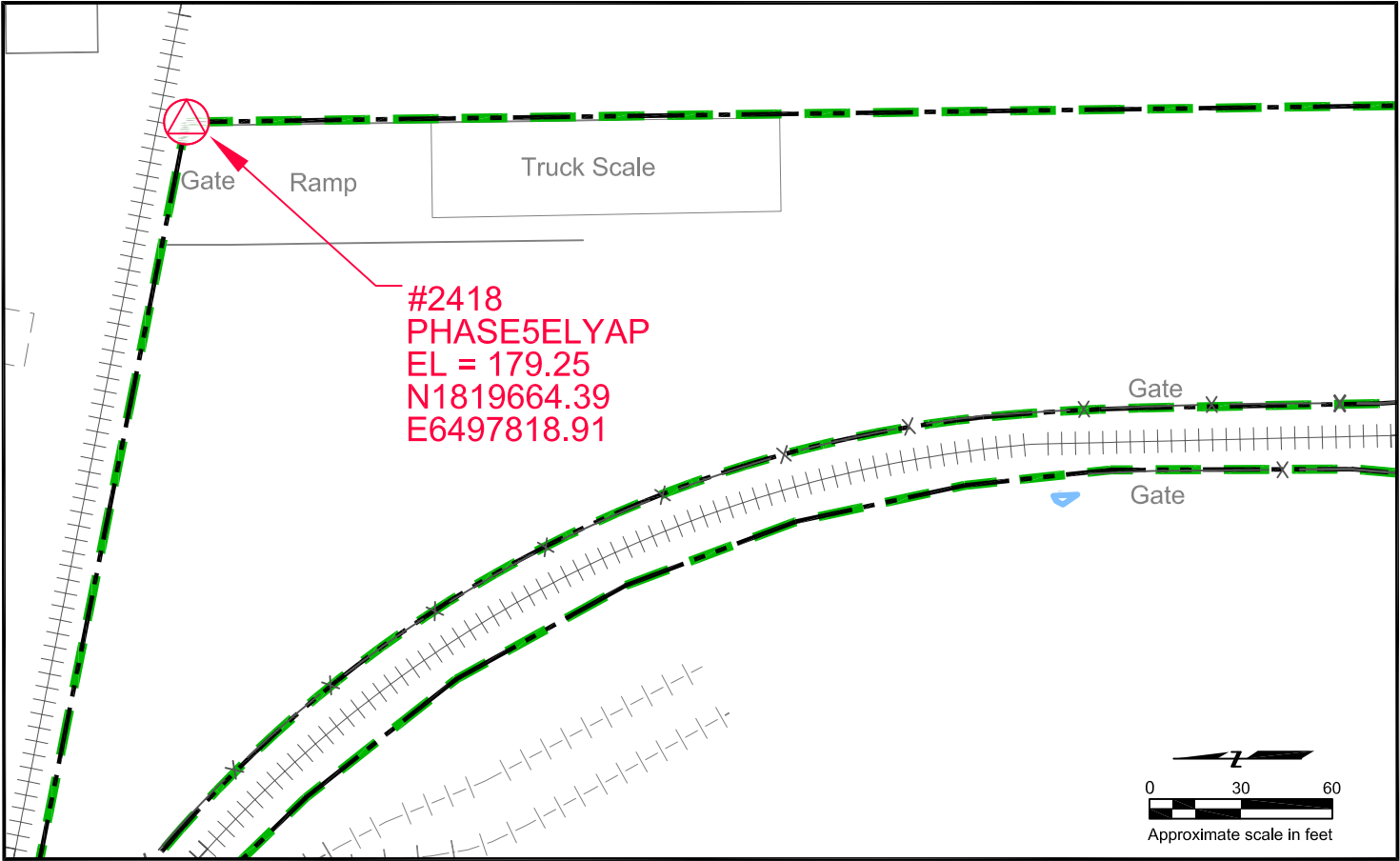
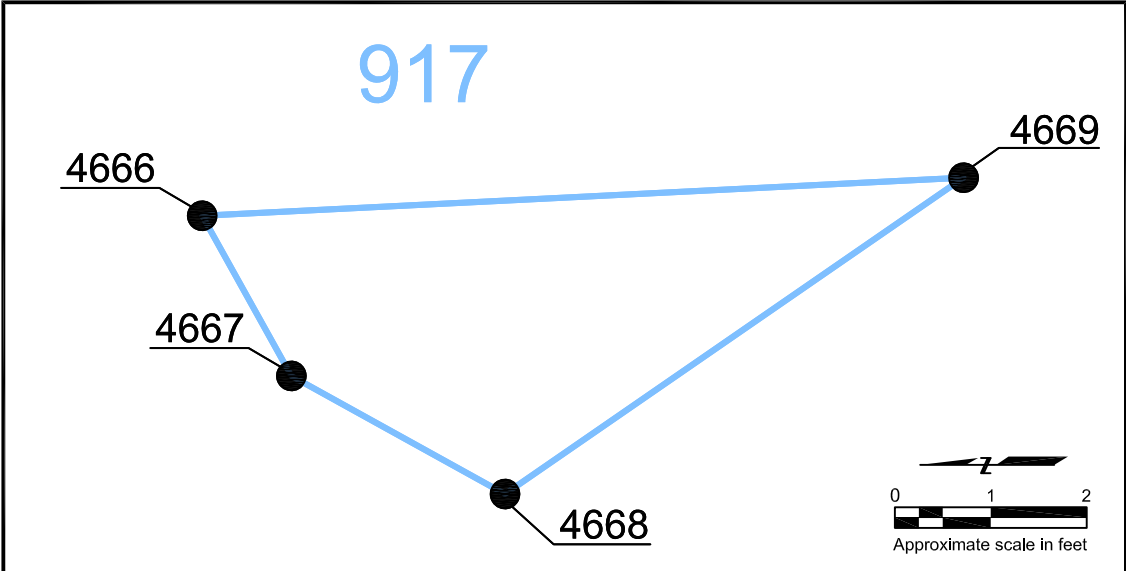
Conclusion and Discussion: The bricks contain low levels of naturally occurring uranium and thorium daughter products. The material would be considered technically enhanced naturally occurring radioactive material (TENORM). Technologically-Enhanced, Naturally-Occurring Radioactive Material (TENORM) is produced when activities such as uranium mining, or sewage sludge treatment, concentrate or expose radioactive materials that occur naturally in ores, soils, water, or other natural materials. The concentration in the bricks is less than 10 pCi/g and less than the previous refractory brick activity levels. The concentration of the Uranium and Thorium is fairly evenly distributed in the bricks, which is different than the previous refractory bricks that had higher concentrations of Thorium daughters as expected. The current bricks may not have been actual refractory bricks used in the furnaces and may be just structural building materials.

References

1. NUREG 1717 Systematic Radiological Assessment of Exemptions for Source and Byproduct Materials
2. Tsurikov, N., Hinrichsen, P., Omar, M., Horst, R., Regulation of Natural Radioactivity in International Transport and Trade, Radium Historical Items Catalog Final Report August 2008, M. A. Buchholz, M. Cervera.
3. Cooper, M. , Naturally Occurring Radioactive Materials (NORM in Australian Industries – Review of Current Inventories and Future Generation, Report to Radiation Health and Safety Advisory Council, ERS-006, September 2005.
4. http://www.world-nuclear.org/info/Safety-and-Security/Radiation-and-Health/Naturally-Occurring-Radioactive-Materials-NORM/#.UnJpZpnn_t4

APPENDIX D

In Place Structure Information



Structure 917 - Survey Data
Pechiney - Phase V Area

BENCHMARK:

VERTICAL DATUM NAVD88

COUNTY OF LOS ANGELES BM #Y10598, 2" DISC IN WALK
4.6' N/O CF, 14.8' W/O BCR AT NE COR SLAUSON AVE AND
BOYLE AVE (TO THE N) MKD (CITY OF VERNON MON)

2005 ELEV= 168.611 FEET NAVD88

HORIZONTAL DATUM NAD83, ZONE 5

NGS PID STATIONS AJ1840 AND AJ1885 EPOCH DATE 2000.35



Label	Easting	Northing	Elevation
4666	6497696.2714	1819379.9656	169.11
4667	6497694.6032	1819379.0364	169.04
4668	6497693.3732	1819376.8112	169.00
4669	6497696.6676	1819372.0345	169.12

APPENDIX E

Compaction Testing Report and Crushed Concrete Gradation Information

NorCal Engineering
Soils and Geotechnical Consultants
10641 Humbolt Street Los Alamitos, CA 90720
(562) 799-9469 Fax (562) 799-9459

December 3, 2014

Project Number 17007-13

American Integrated Services
P.O. Box 92316
Long Beach, California 90809

Attn: David Herrera

Re: Report of Compaction Tests (Phase V) – Located at 3200 Fruitland
Avenue, in the City of Vernon, California

Dear Mr. Herrera:

Pursuant to your request, this firm has provided this geotechnical report to summarize the observation and testing performed by this firm at the above referenced project. Our geotechnical services are summarized in the subsequent sections of this report.

Backfill Operations

The scope of our services within Phase V consisted of compaction tests located at the bottom of a storm drain trench and in an excavation (pothole) provided by the contractor. Compaction tests at these locations revealed a minimum of 90% relative compaction. An excavator mounted sheepsfoot wheel was utilized for compaction control. A water truck provided moisture control.

Laboratory/Field Testing

The relative compaction was determined by Sand Cone Method (ASTM: D1556-07). The maximum density of the fill soils was obtained by the laboratory standard (ASTM: D1557-07) and results are shown on Table I. A summary of the compaction tests are included with locations shown on the accompanying plan.

No chemical analysis of soils was performed by this firm and is not within the scope of our services.

We appreciate this opportunity to be of service to you. If you have any further questions, please do not hesitate to contact the undersigned.

Respectfully submitted,
NORCAL ENGINEERING



Keith D. Tucker
Project Engineer
R.G.E. 841



Walter K. Mott
Project Manager

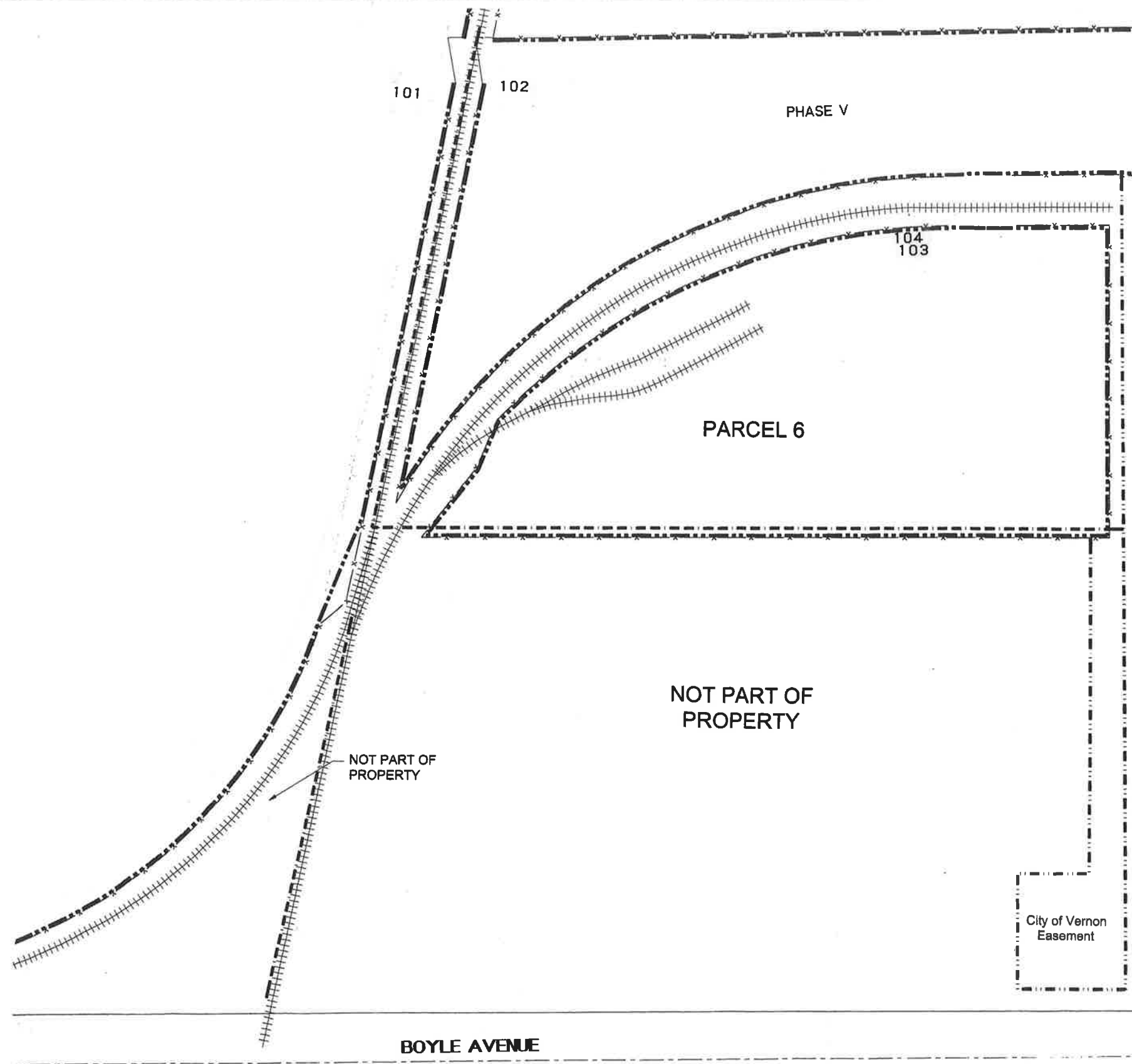
TABLE I
MAXIMUM DENSITY TESTS
(ASTM: D1557-07)

<u>Sample</u>	<u>Classification</u>	<u>Optimum Moisture</u>	<u>Maximum Dry Density (lbs./cu.ft.)</u>
I	Silty SAND	11.0	110.5
II	Sandy SILT	11.5	119.0

SUMMARY OF COMPACTION TEST RESULTS

<u>Date of Test</u>	<u>Test No.</u>	<u>Location</u>	<u>Depth</u>	<u>Percent Moisture</u>	<u>Unit Wt. lbs./cu.ft.</u>	<u>Relative Compaction</u>	<u>Soil Type</u>	<u>Test S/D</u>
9/24/14	101	Storm Drain Bottom	8.0-8.5	8.6	95.4	86	I	S
9/24/14	101A**	Storm Drain Bottom	8.0-8.5	10.3	101.3	92	I	S
9/24/14	102	Storm Drain Bottom	3.5-4.0	9.1	104.5	88	II	S
9/24/14	102A**	Storm Drain Bottom	3.5-4.0	10.0	107.3	90	II	S
9/24/14	103	Pothole Excavation	2.0-2.5	9.5	100.2	91	I	S
9/24/14	104	Pothole Excavation	4.0-4.5	9.8	102.8	93	I	S

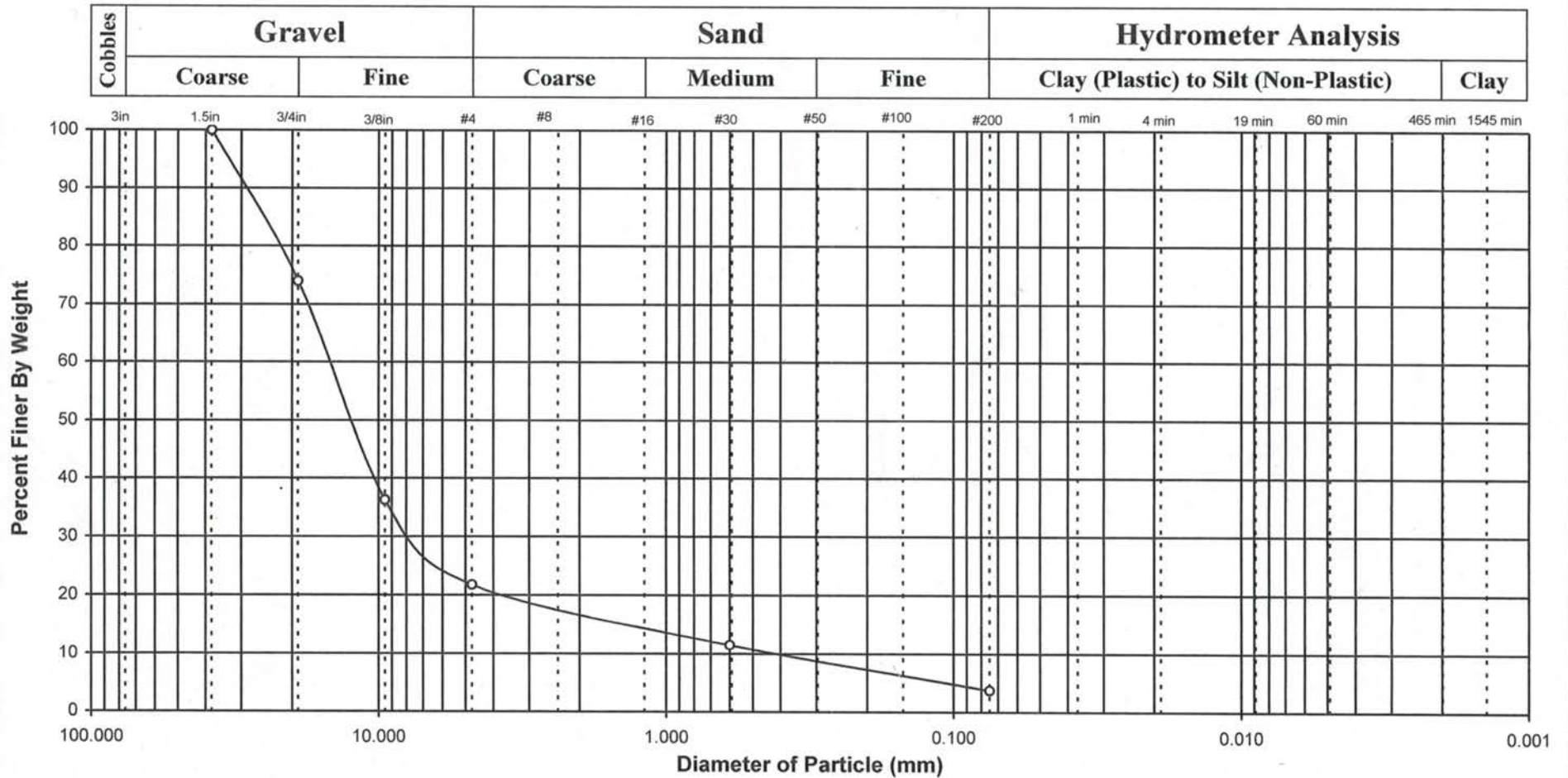
**Retest of failing tests after area reworked
S= Sand Cone Method



NorCal Engineering	
SOILS AND GEOTECHNICAL CONSULTANTS	
AIS	
PROJECT 17007-13	DATE DECEMBER 2014

PHASE V
APPROXIMATE
LOCATION OF COMPACTION TESTS

U.S. Standard Sieve Size



Symbol	Boring/ Depth (ft)	1 1/2 in.	3/4 in.	3/8 in.	#4	#30	#200				
		% Finer	% Finer	% Finer	% Finer	% Finer	% Finer				
○	222-14	100	74	36	22	12	4				
△											
□											
◇											

NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

OK

A.I.S.

PROJECT NUMBER: 17007-13

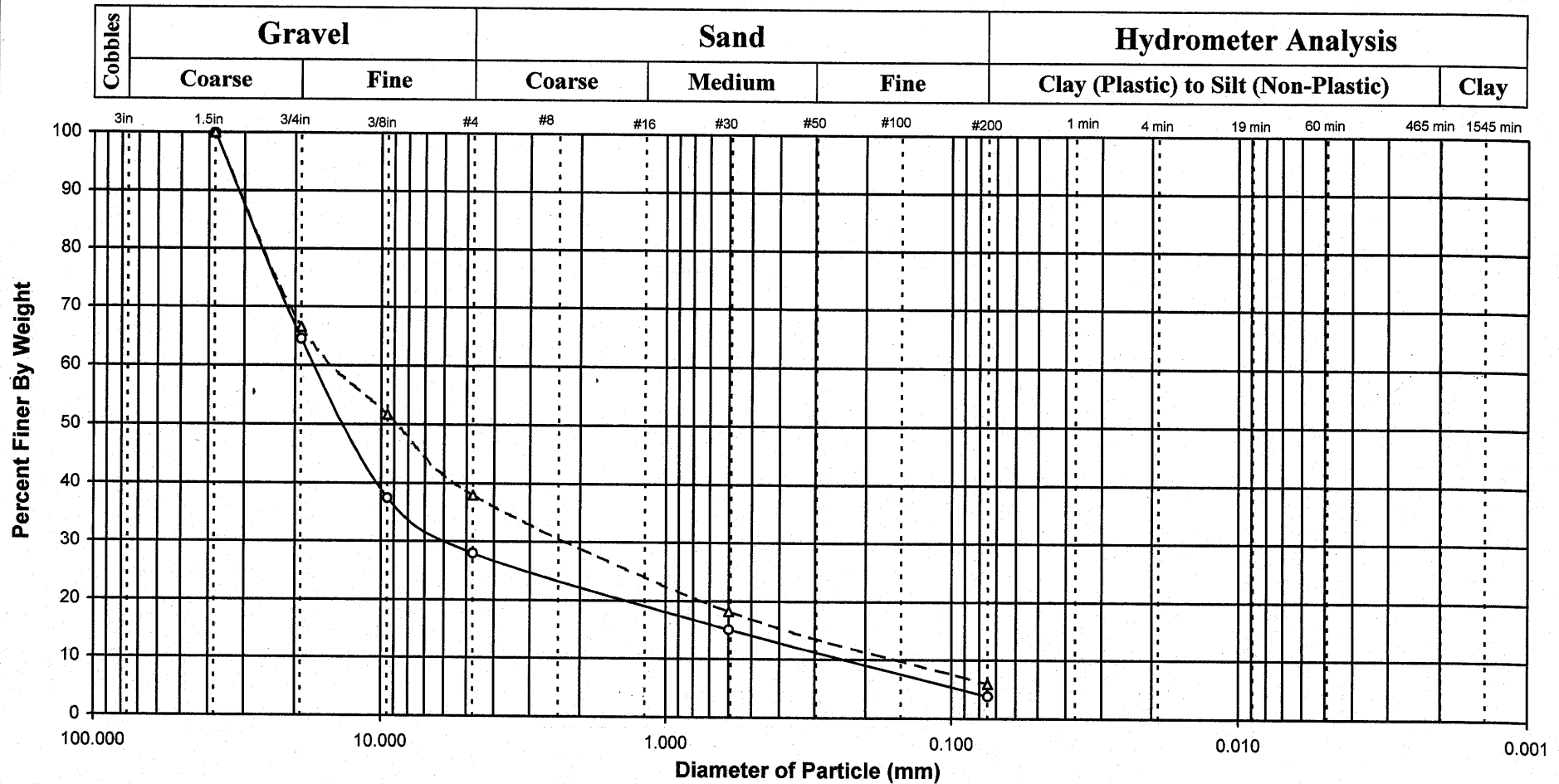
DATE: 4/16/2014

Sieve Analysis

For Fine & Coarse Aggregates and
Hydrometer Analysis

ASTM C136 & ASTM D422

U.S. Standard Sieve Size



Symbol	Boring/ Depth (ft)	1 1/2 in.	3/4 in.	3/8 in.	#4	#30	#200				
		% Finer	% Finer	% Finer	% Finer	% Finer	% Finer				
○	202-14	100	65	37	28	15	4				
△	203-14	100	67	52	38	18	6				
□											
◇											

NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

A.I.S.

PROJECT NUMBER: 17007-13

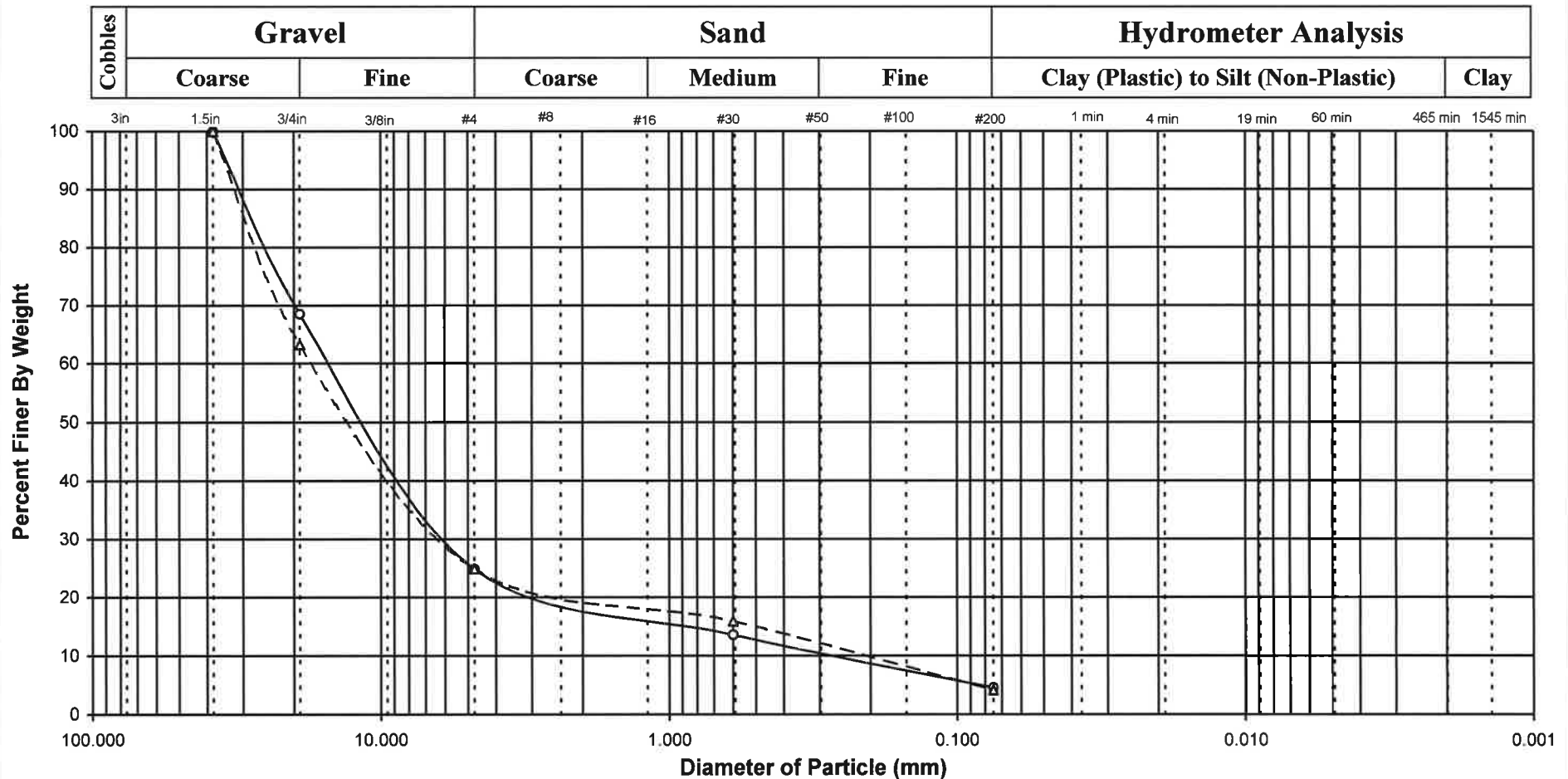
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Sieve Analysis

For Fine & Coarse Aggregates and
Hydrometer Analysis

ASTM C136 & ASTM D422

U.S. Standard Sieve Size



Symbol	Boring/ Depth (ft)	1 1/2 in.	3/4 in.	#4	#30	#200					
		% Finer	% Finer	% Finer	% Finer	% Finer					
○	135-14	100	69	25	14	5					
△	138-14	100	63	25	16	4					
□											
◇											

NorCal Engineering
SOILS AND GEOTECHNICAL CONSULTANTS

A.I.S.

PROJECT NUMBER: 17007-13

DATE: 1/28/2014

Sieve Analysis

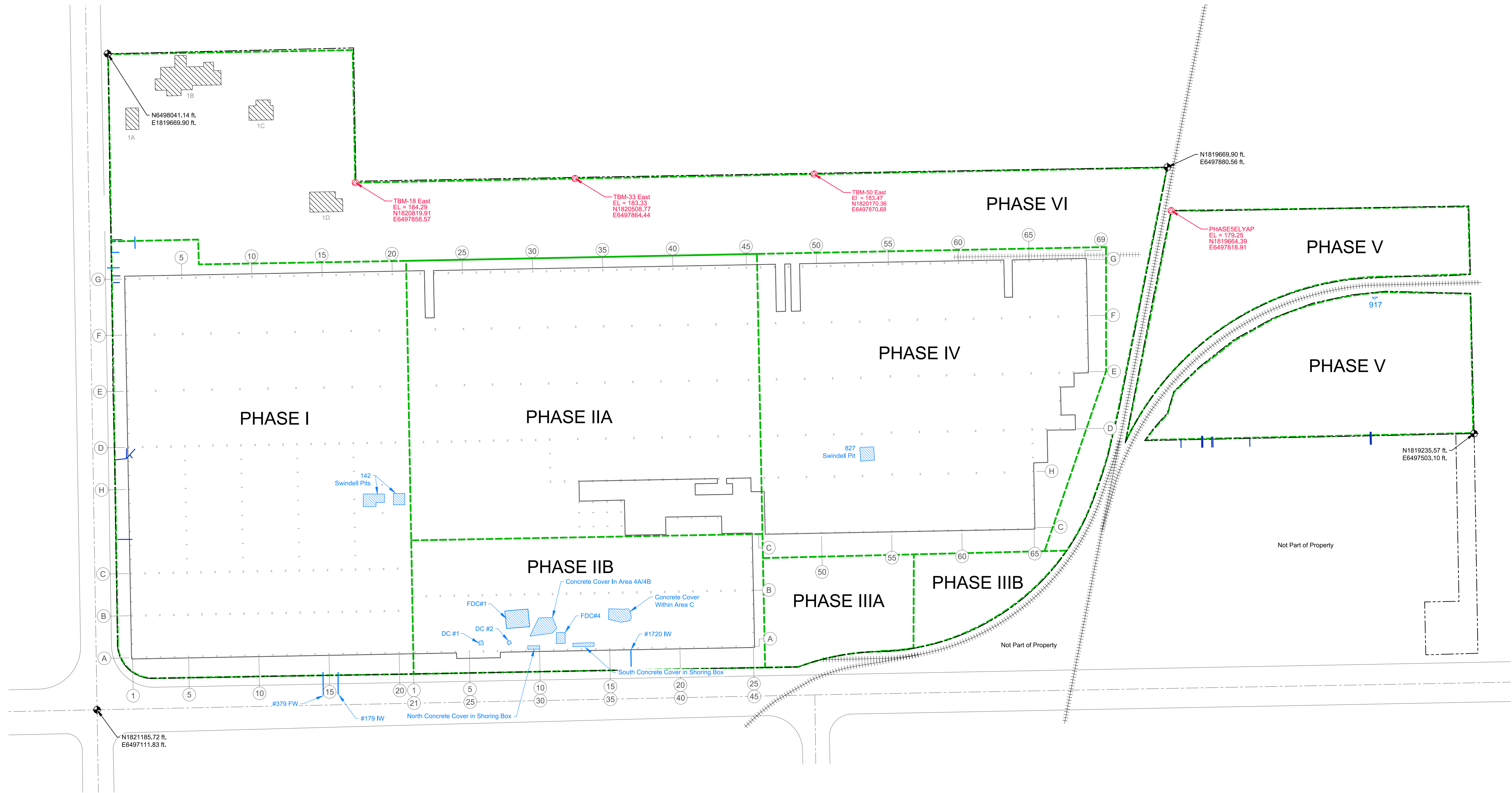
For Fine & Coarse Aggregates and
Hydrometer Analysis

ASTM C136 & ASTM D422

APPENDIX F

Record Drawings (Site-Wide)

Plot Date: 3/30/2015 4:48:16 PM, Plotted by: rail.tiering
Drawing Path: Y:\0627003\ACAD\REPORTS\2015\ALL SITE RECORD DRAWING\SITE_002\RECORD SITE.DWG, SMT Site Record Drawing.Dwg



Explanation

Below grade structure

Previously decommissioned and concrete capped buried structures (1A, 1B, and 1C) and concrete slab (1D) [Ursic, 1999]

Terminated piping

Reference elevation benchmark

Site boundary

Phase boundary

Chain link fence

Railroad tracks (at grade)

Building pad and footings

Column and row numbering system for footings

Benchmark:

Vertical Datum NAVD88

County of Los Angeles BM #Y10598, 2" Disc in walk 4.6' N/O CF, 14.8' W/O BCR at NE COR Slauson Avenue and Boyle Avenue (to the N) MKD (City of Vernon MON)

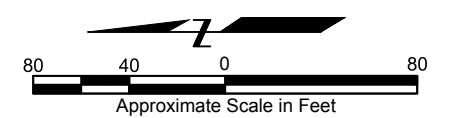
2005 Elev= 168.611 Feet NAVD88

Horizontal Datum NAD83, Zone 5

NGS PID Stations AJ1840 and AJ1885 EPOCH DATE 2000.35

Note:

Record drawings for buried structures 1A, 1B, and 1C, and concrete slab 1D are based on prior as built records and were not verified as part of this work.



Basemap modified from Pechiney Cast Plate, Inc. Site Plan dated January 9, 2002; Aluminum Company of America "Works General-MPA" Figure dated October 10, 1984; Los Angeles County Assessor's Office Parcel Map 6310/Sheet 8 dated November 5, 1958; surveys conducted May 31, 2006 and June 6, 2006 by CalVada Surveyors; and surveys conducted October 12, 2011 and September 10, 2013 by Dulin & Boynton.

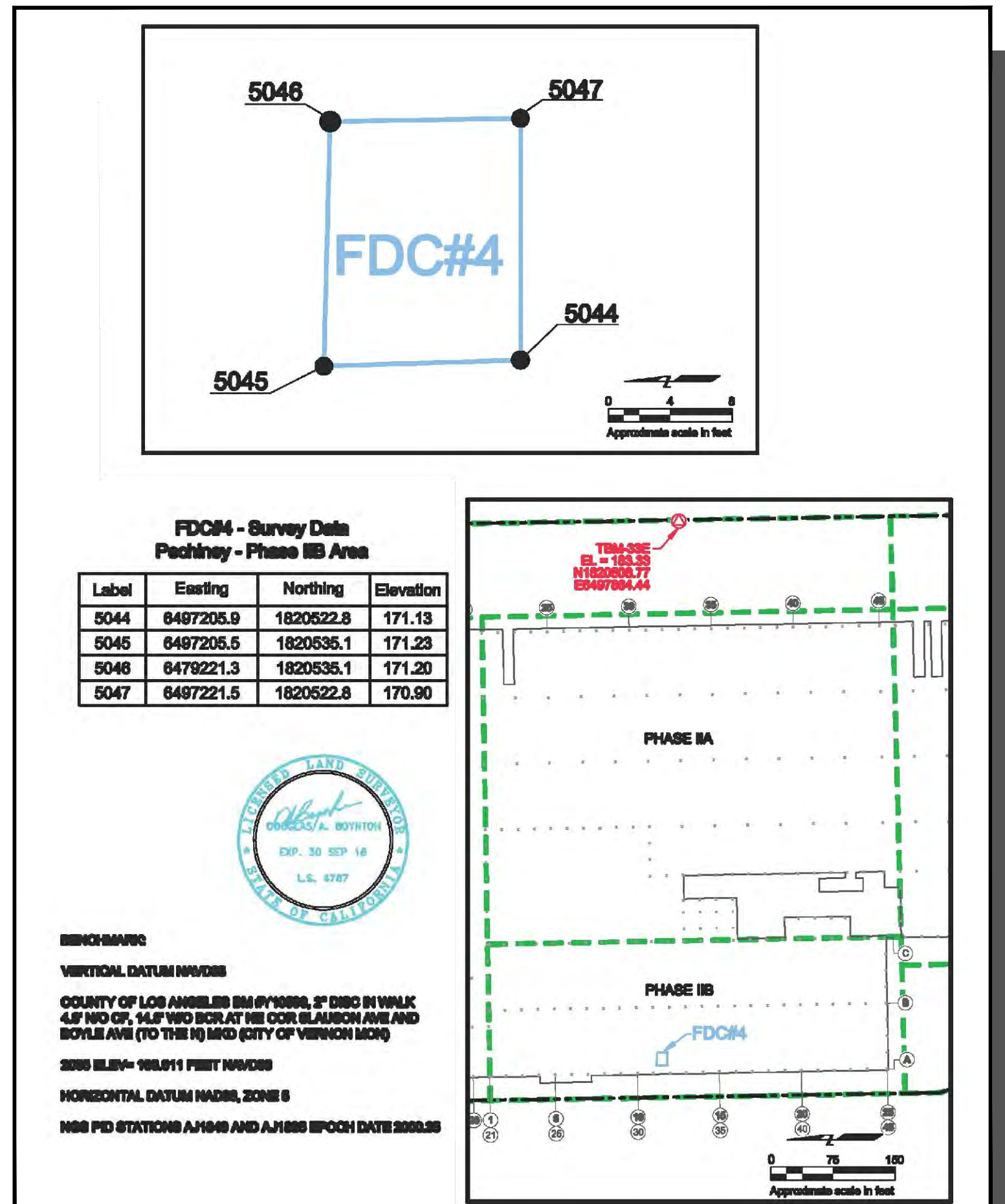
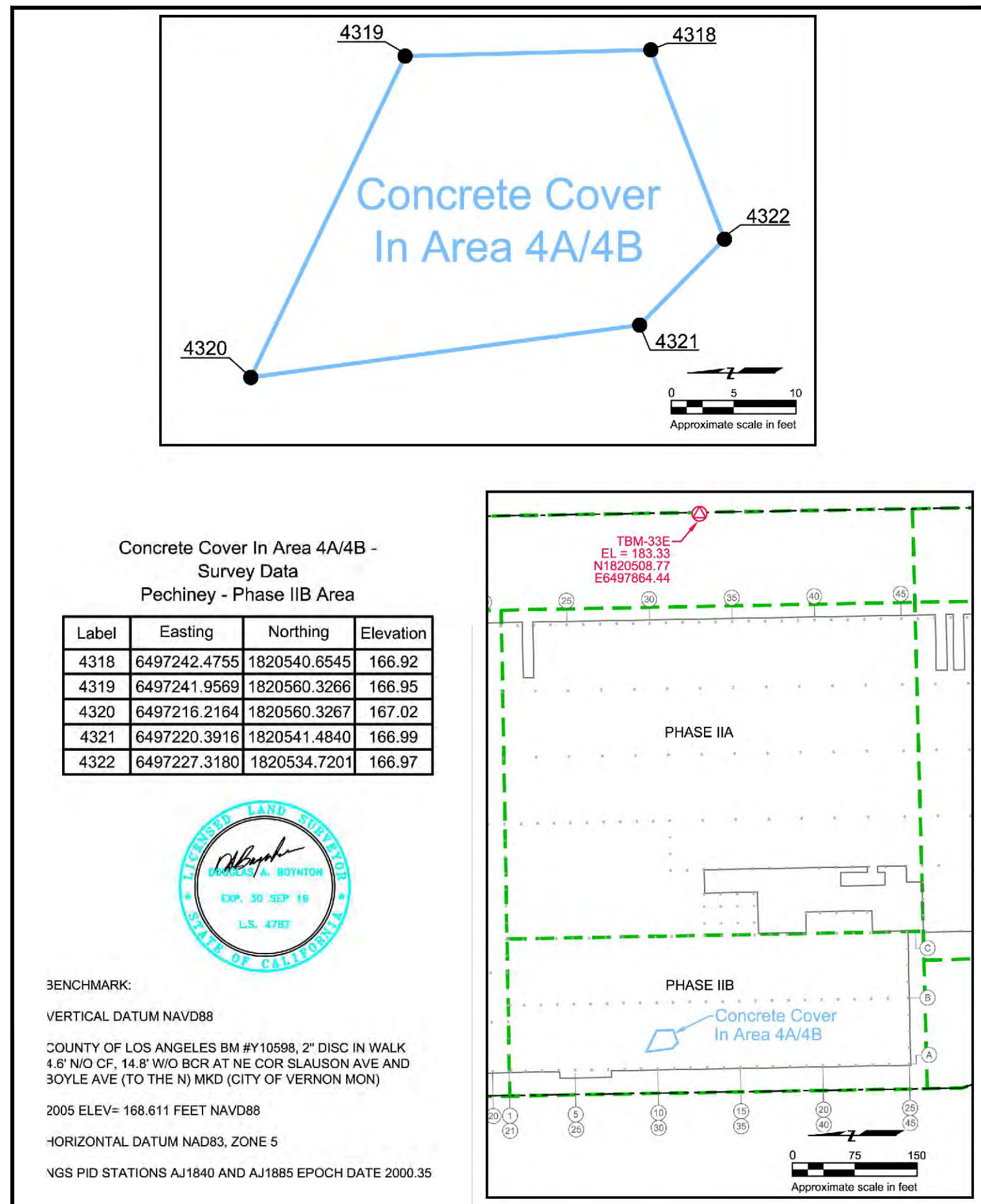
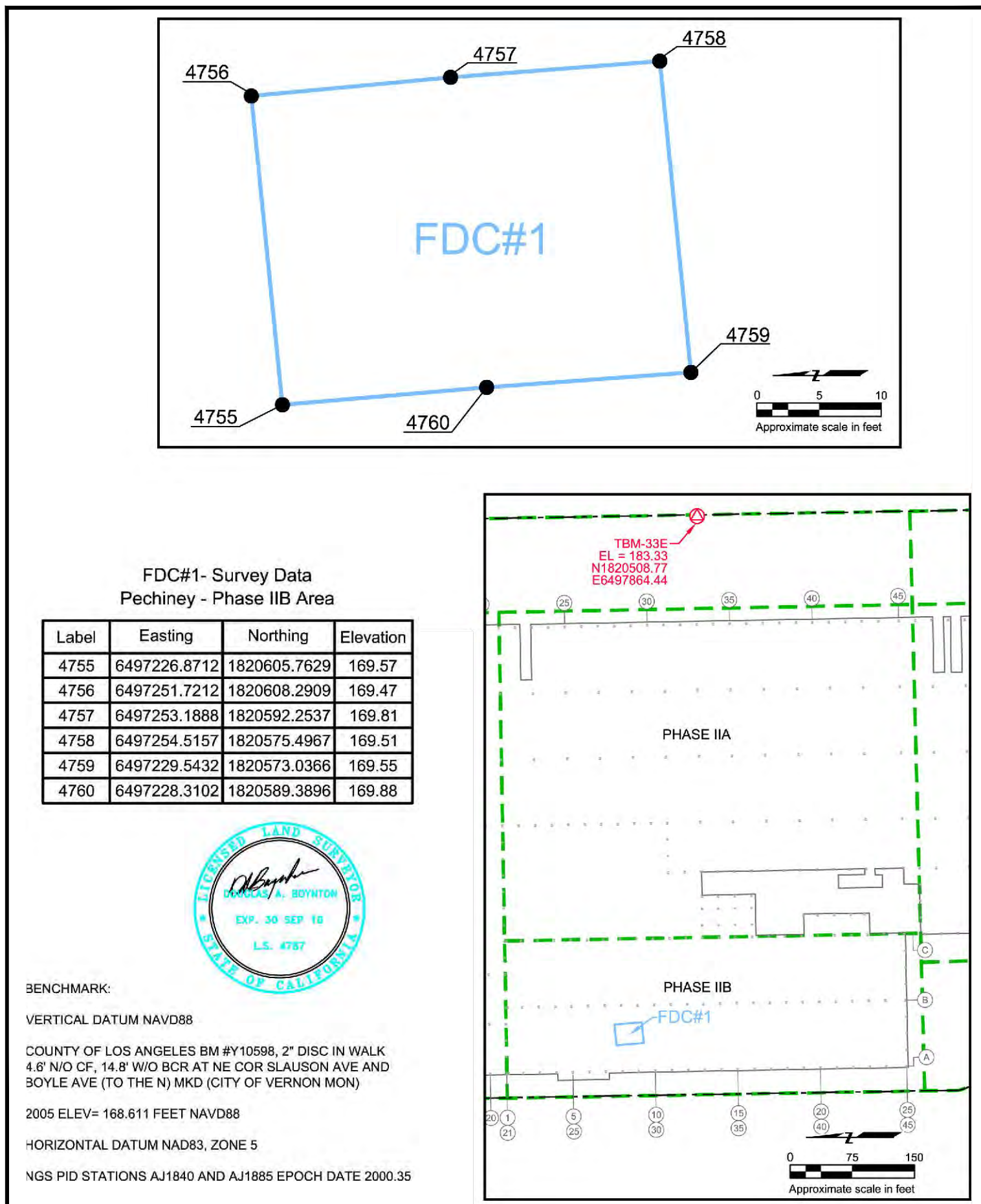
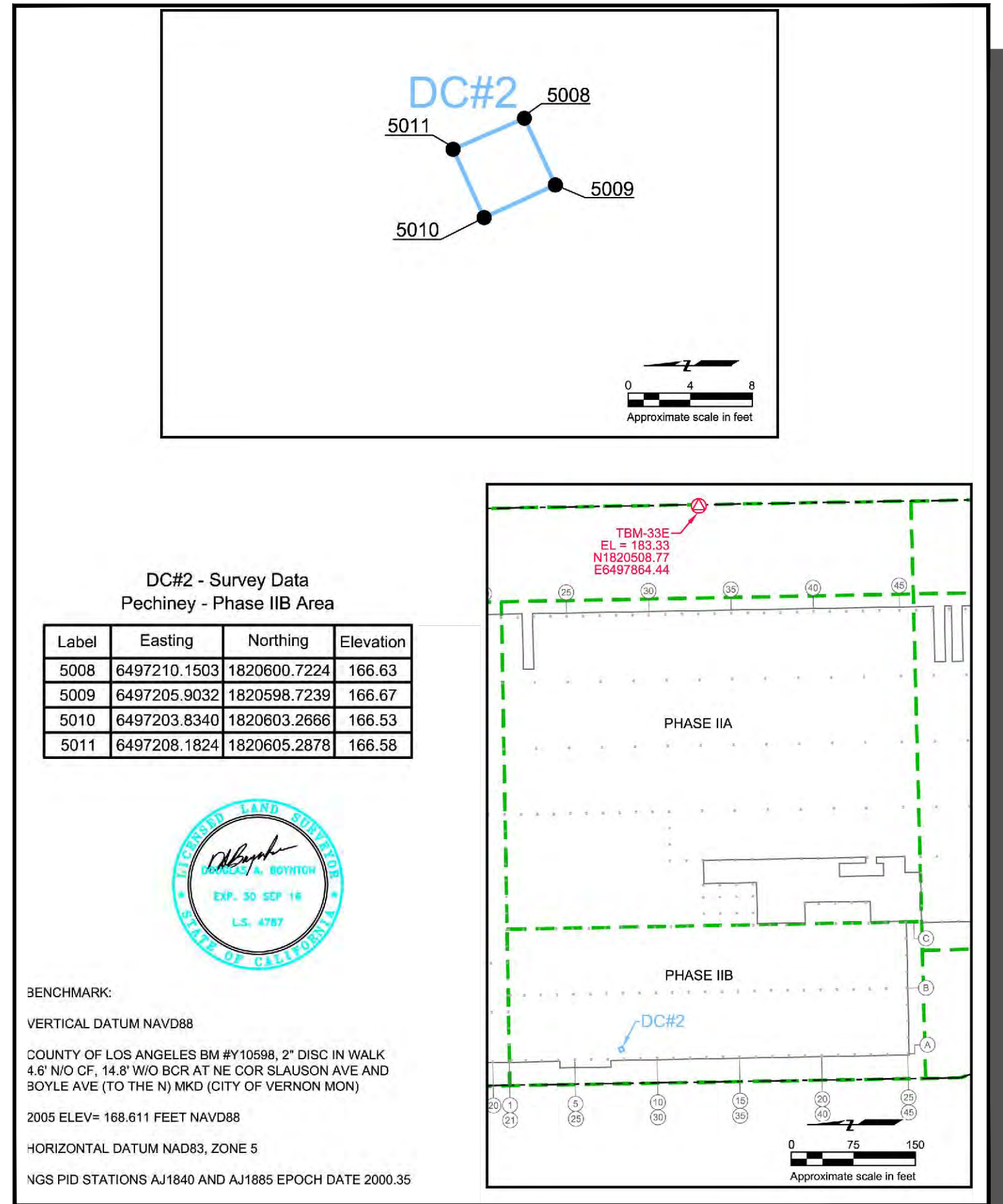
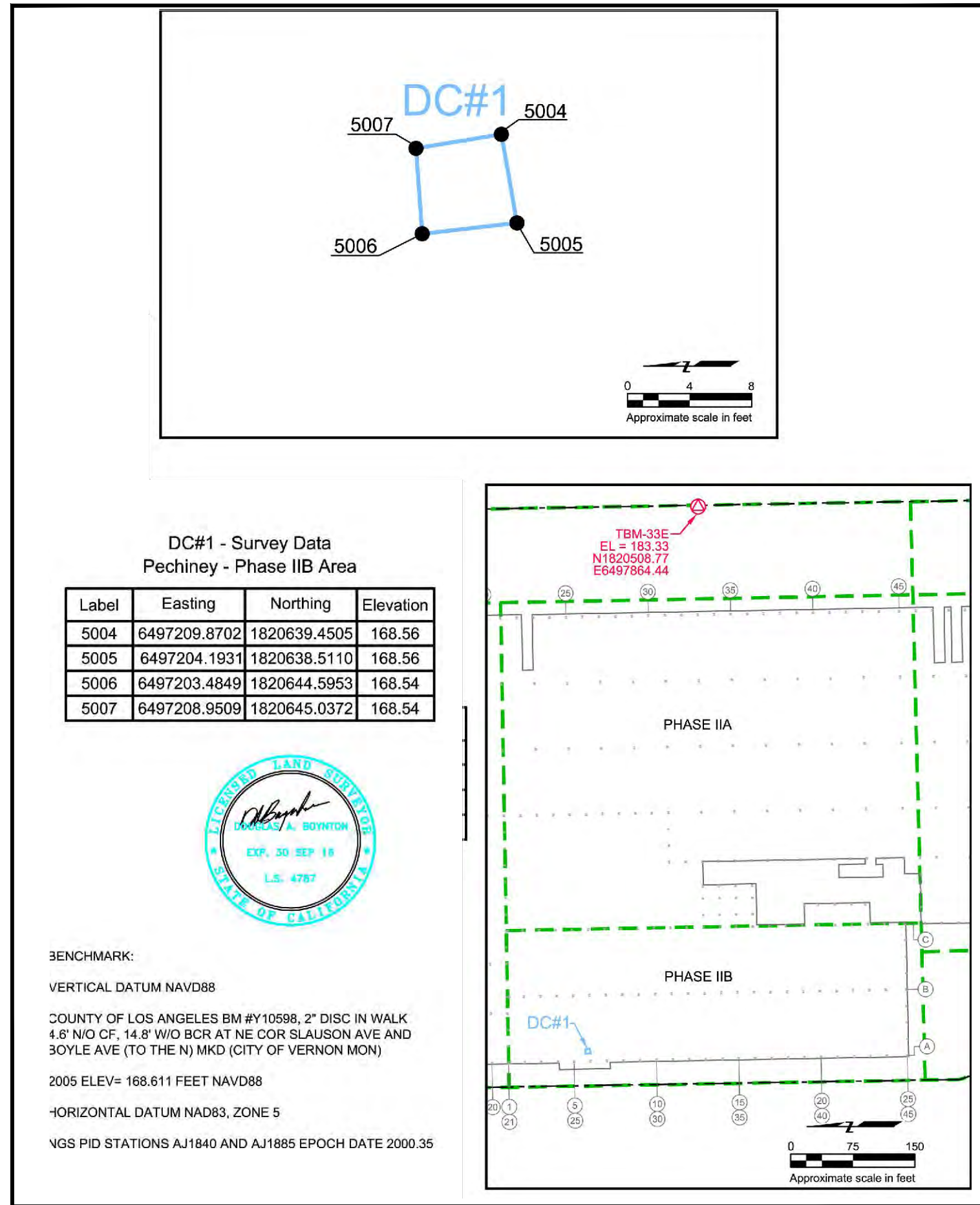
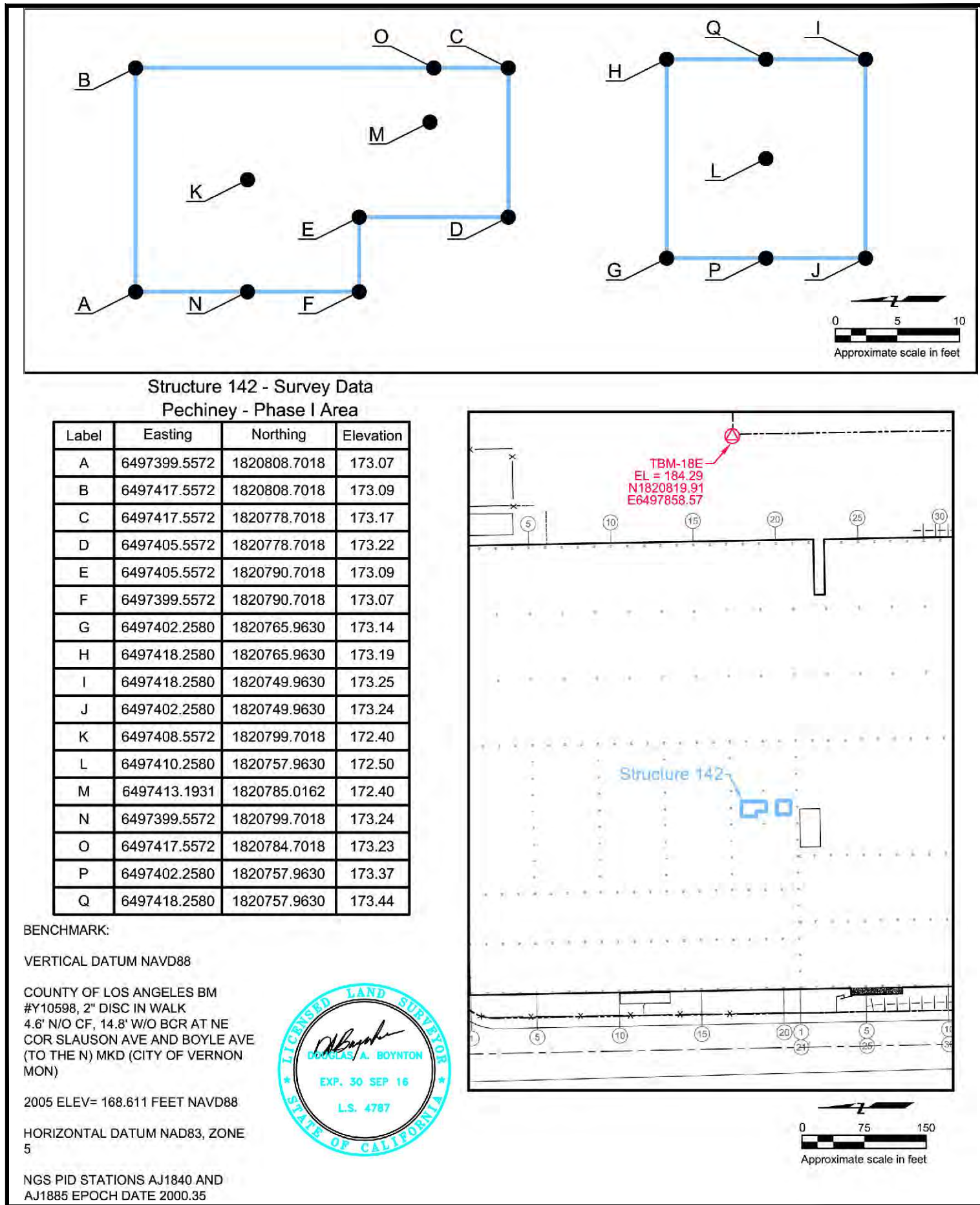
SITE RECORD PLAN
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: pah/jrw Date: 03/30/15 Project No. 10627.003



Sheet ☐ of ☐

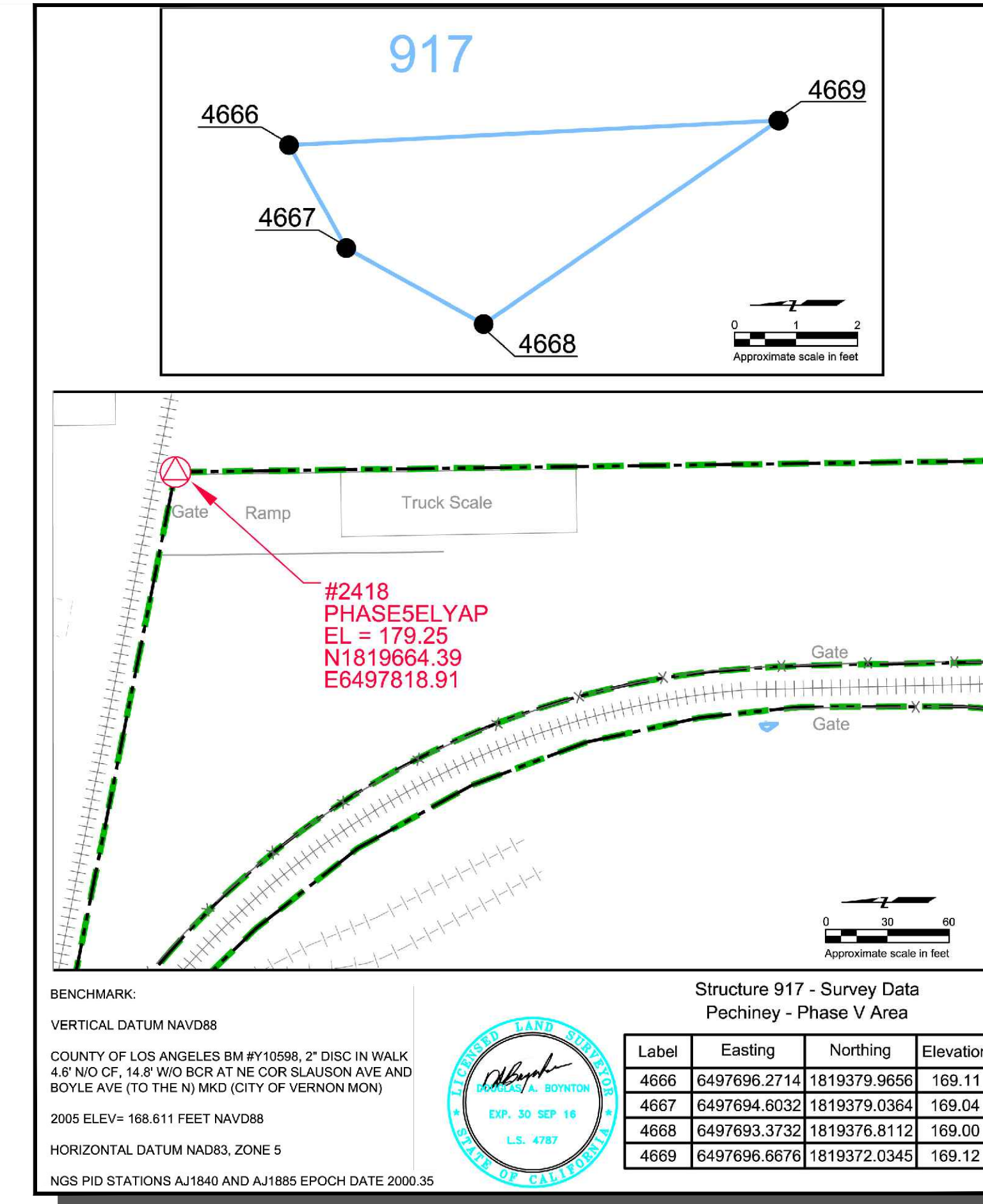
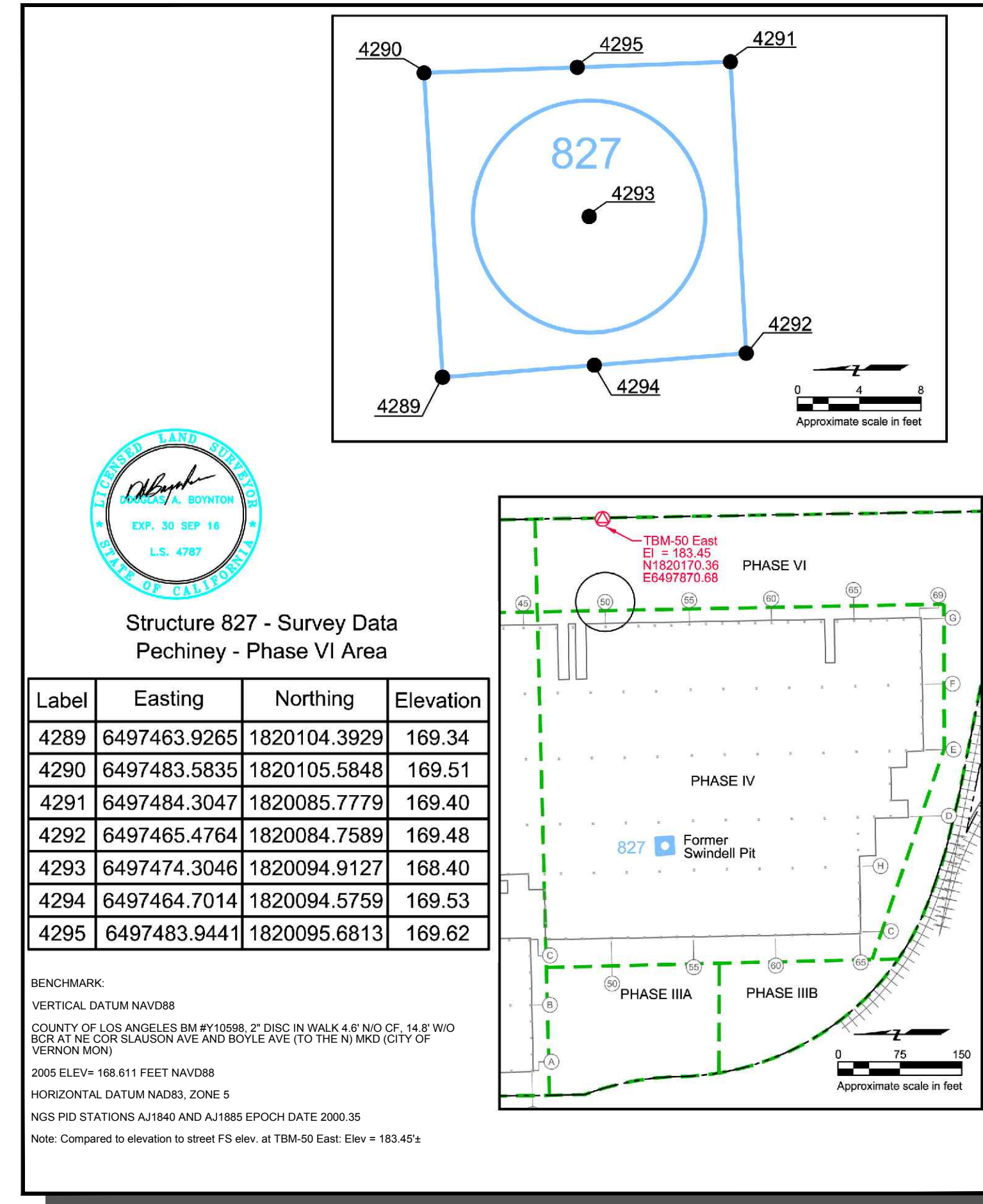
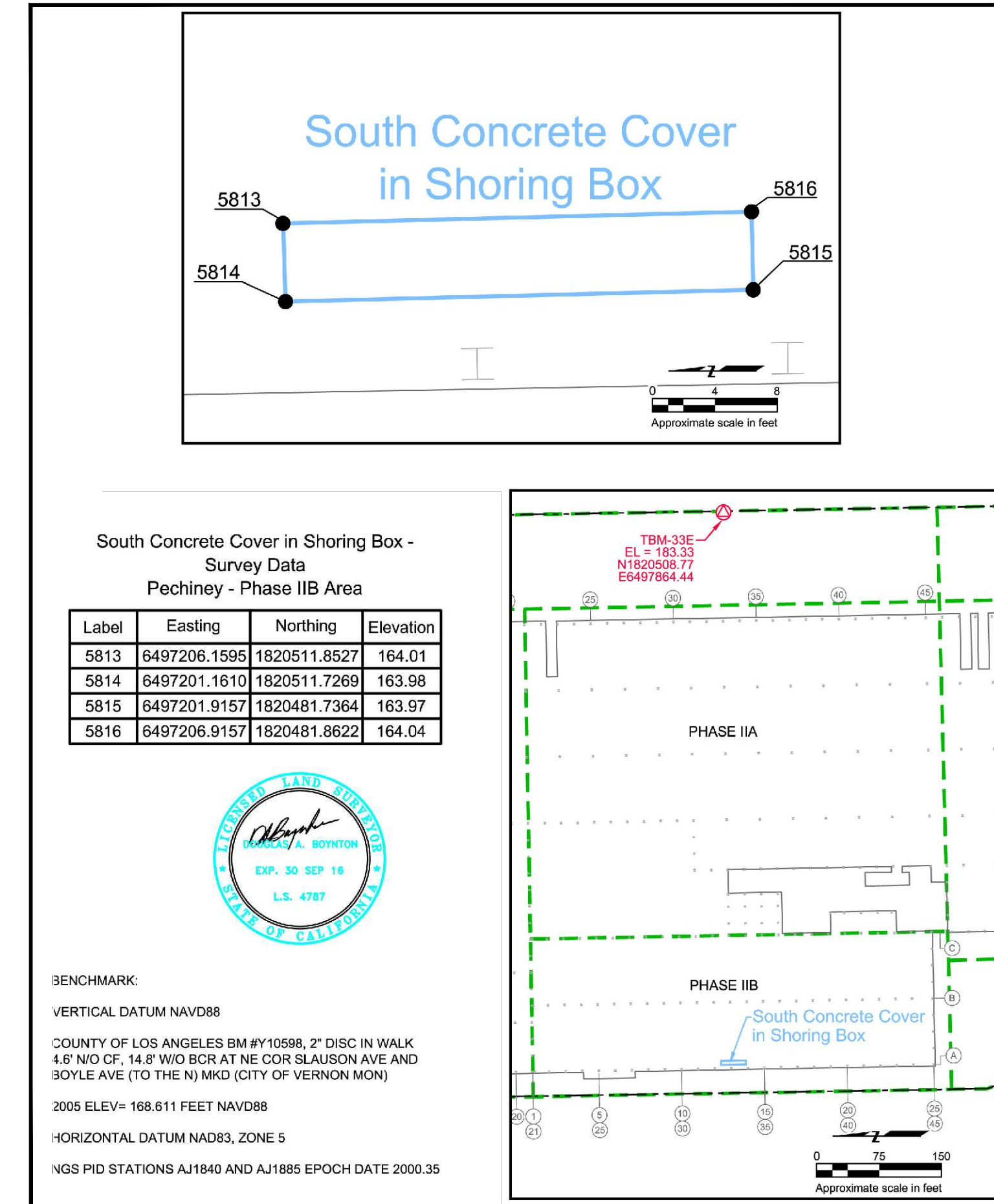
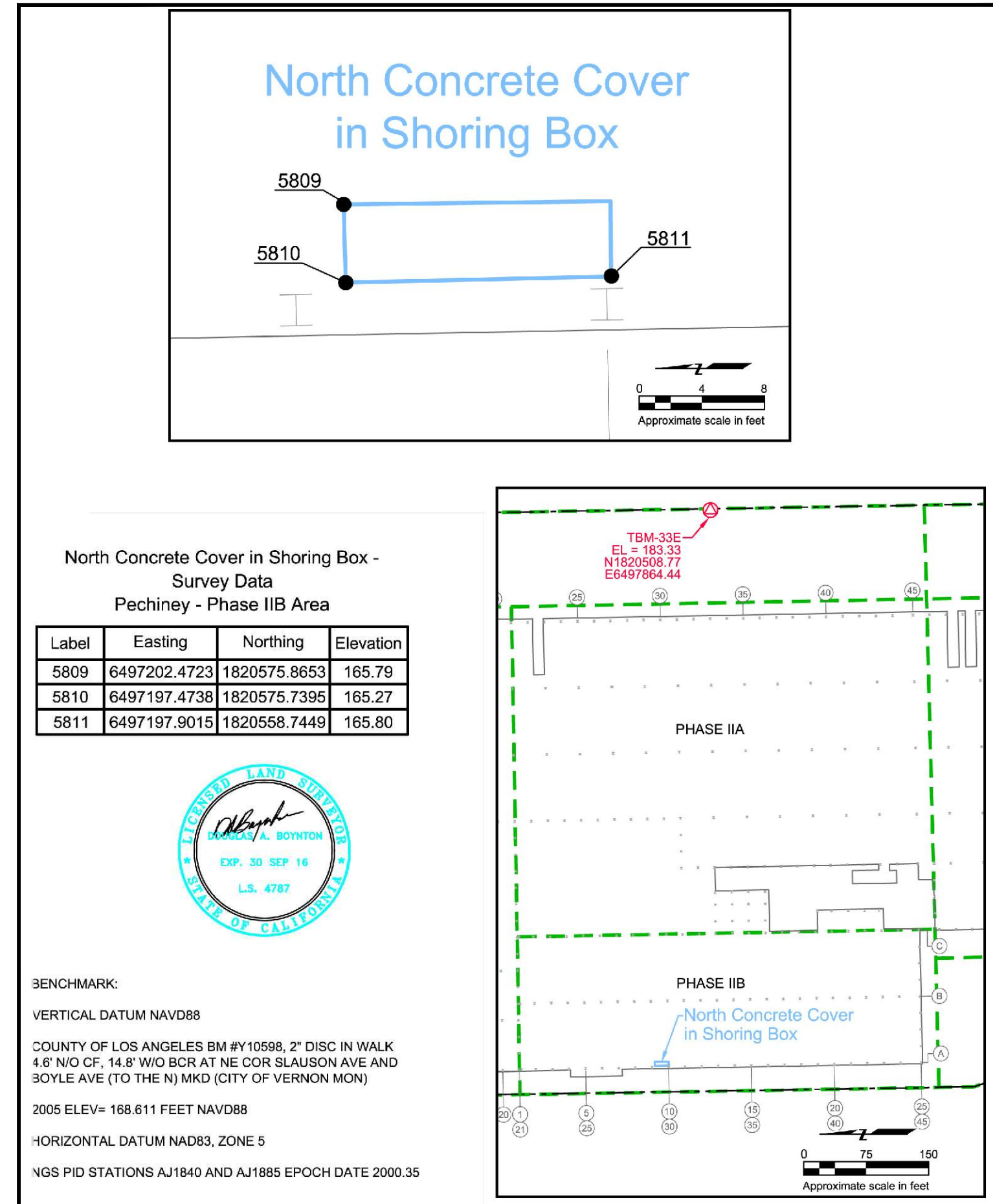
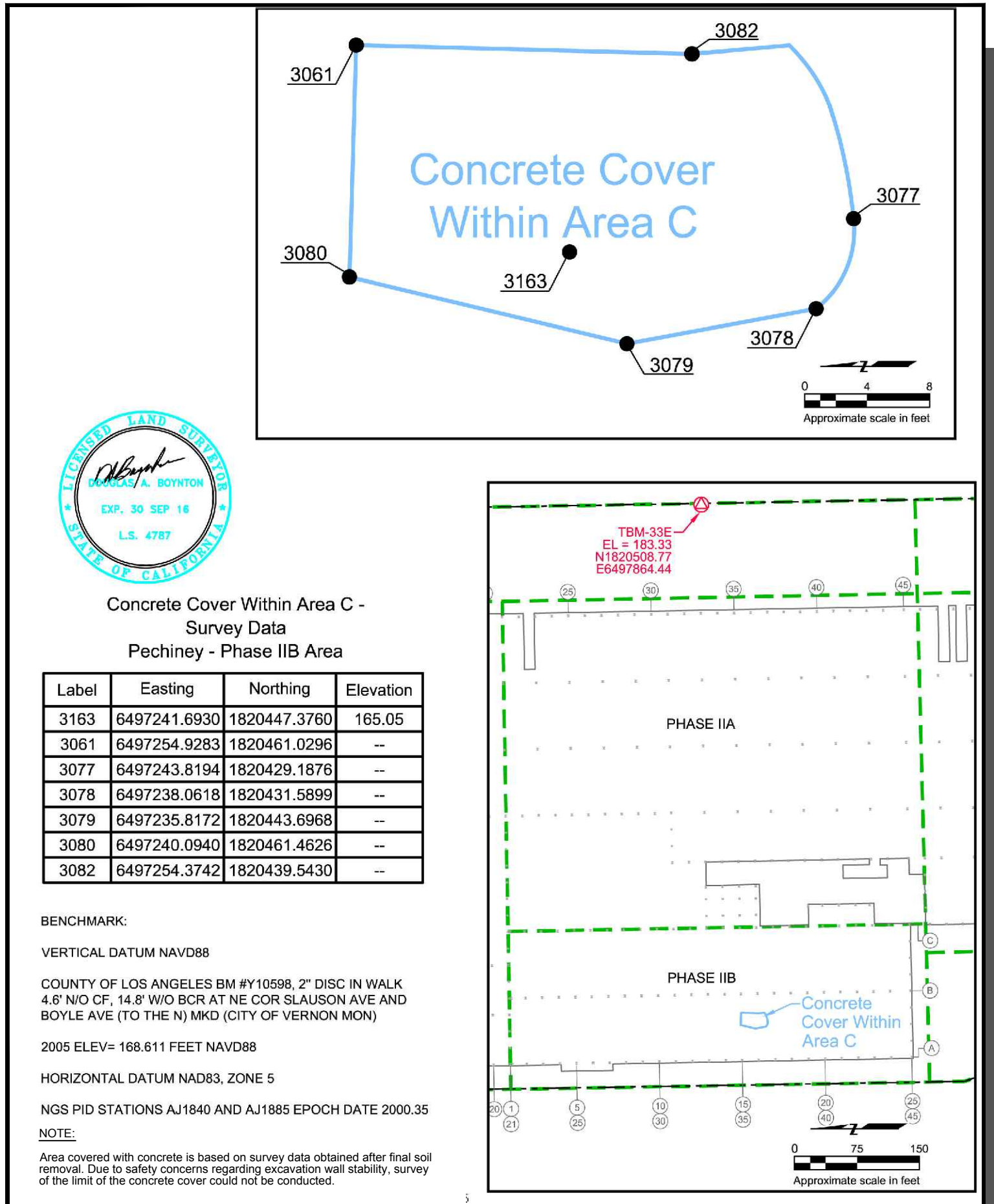
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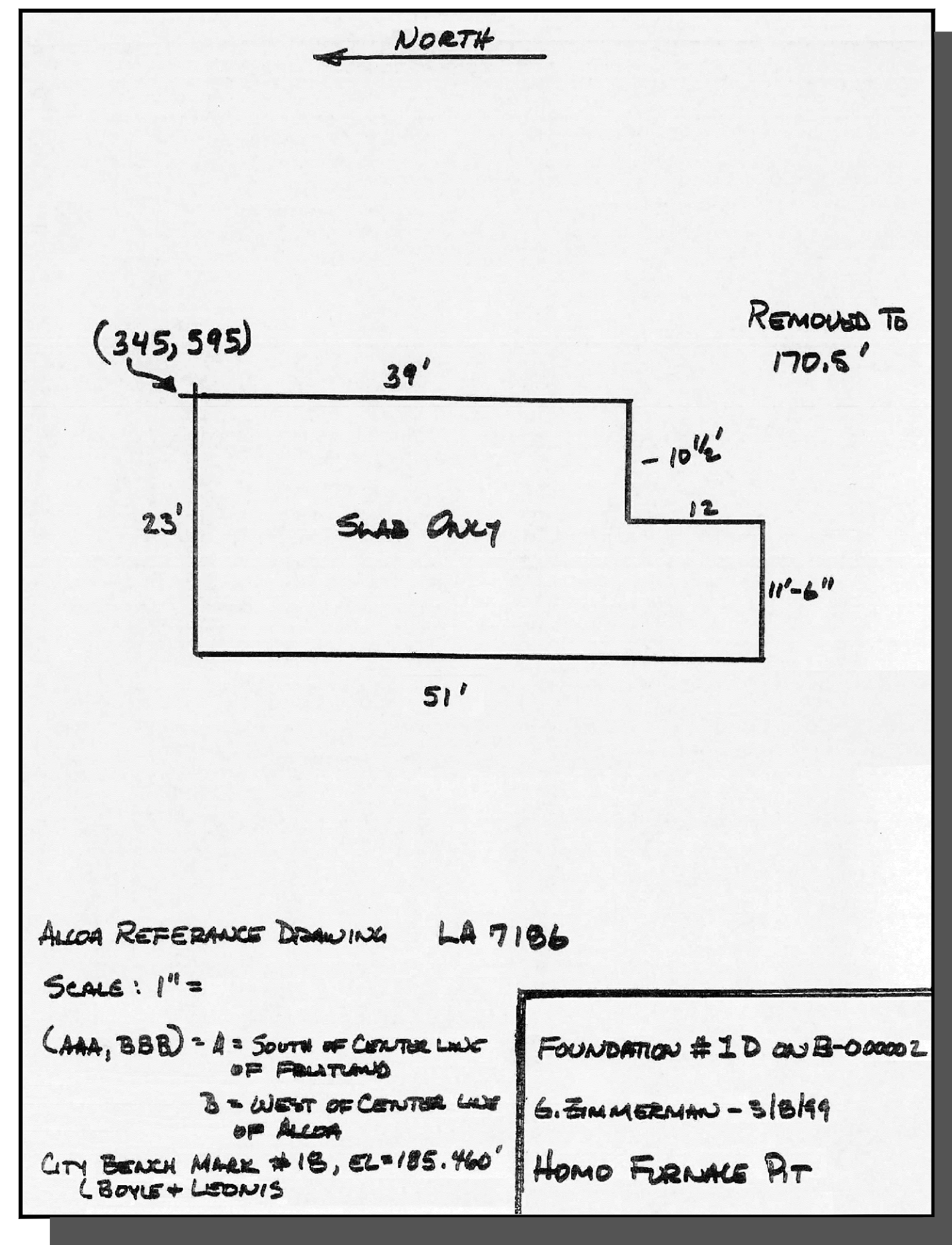
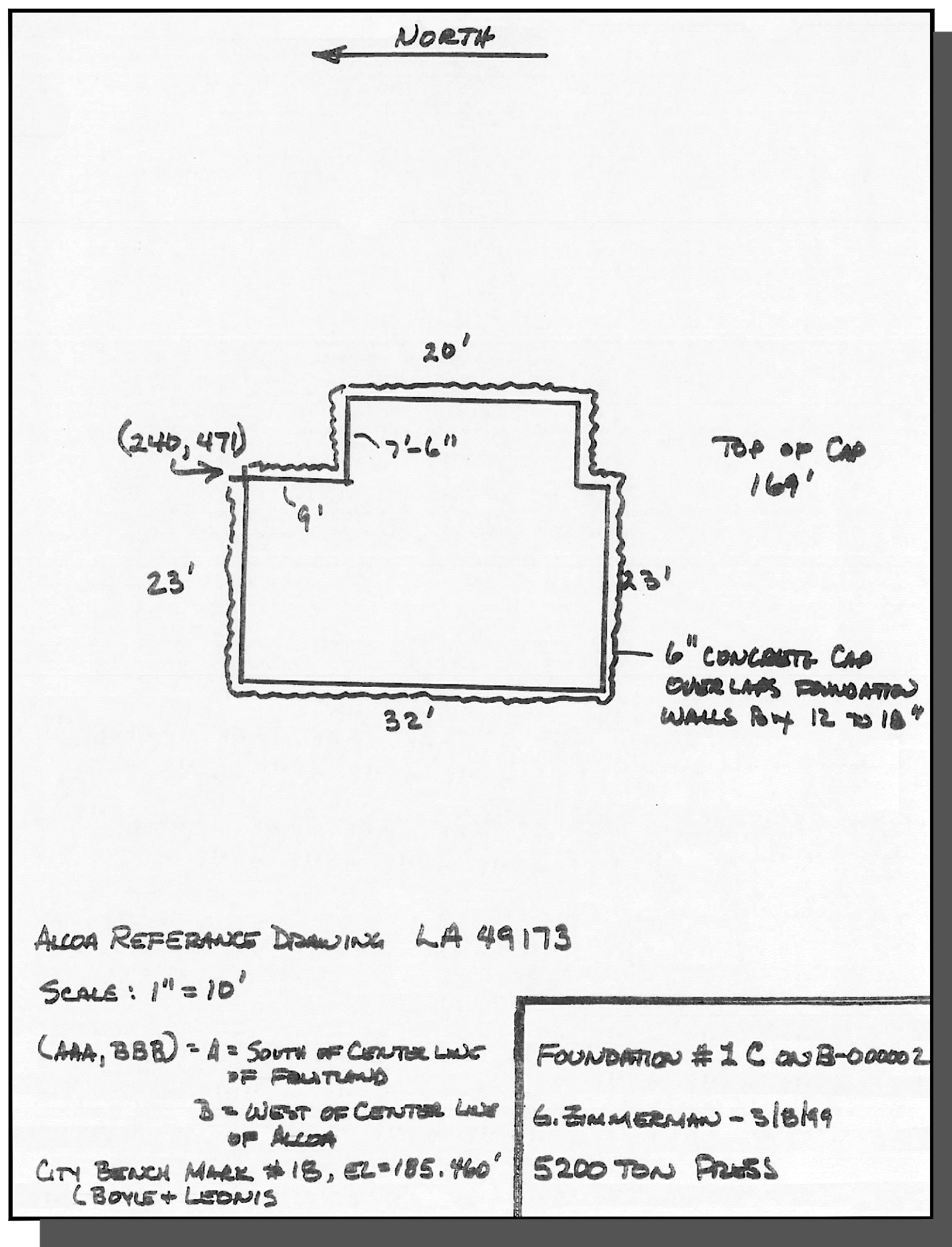
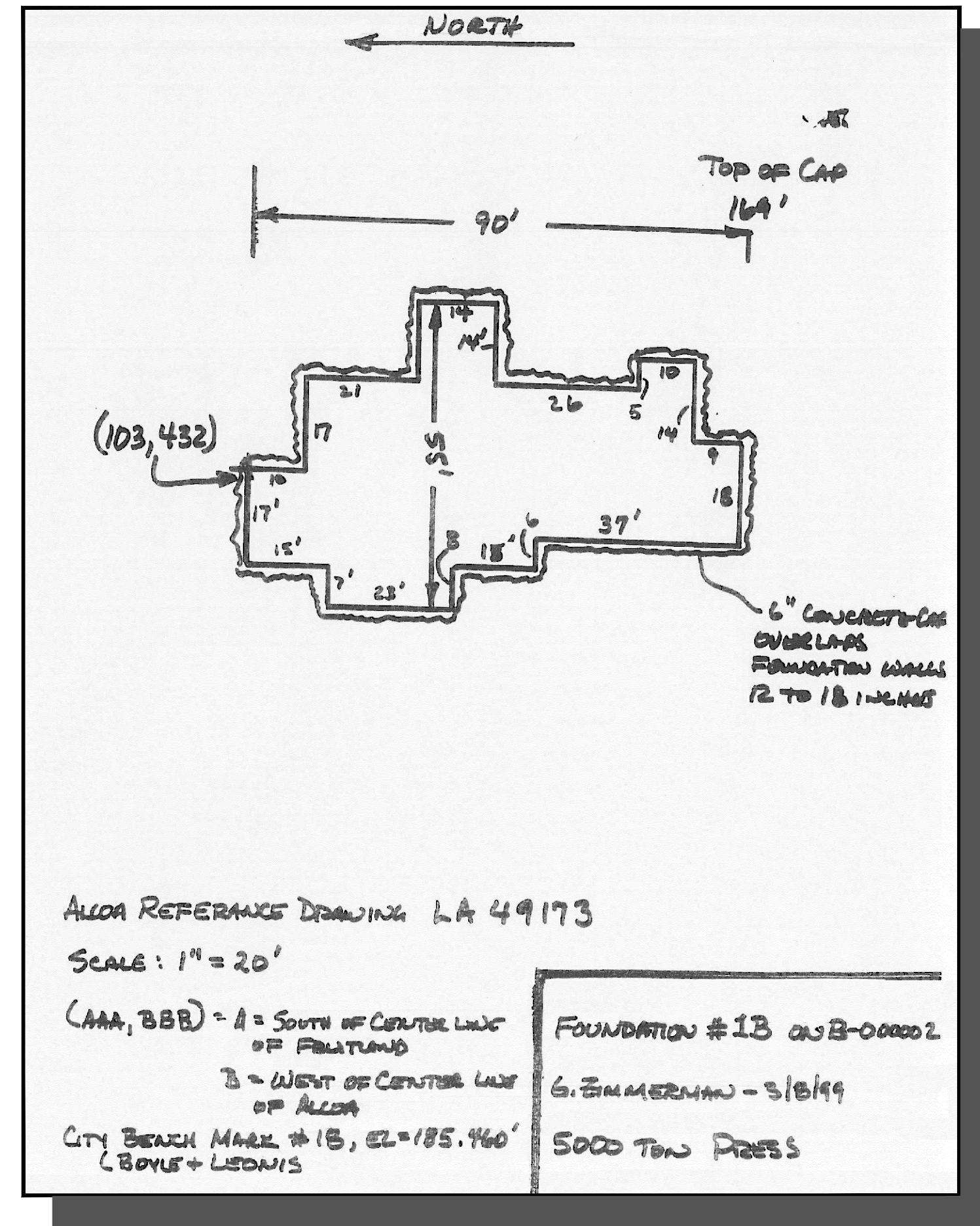
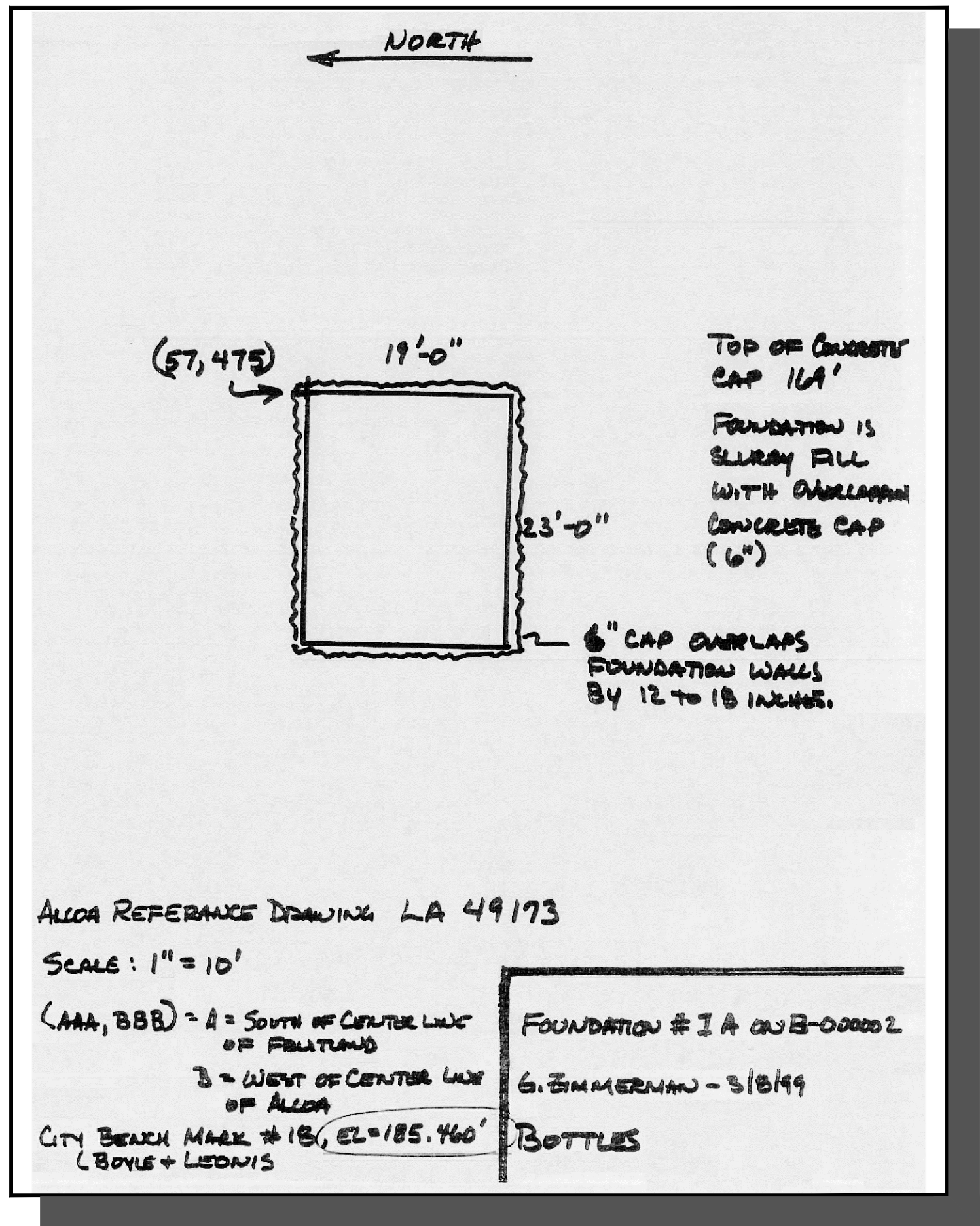
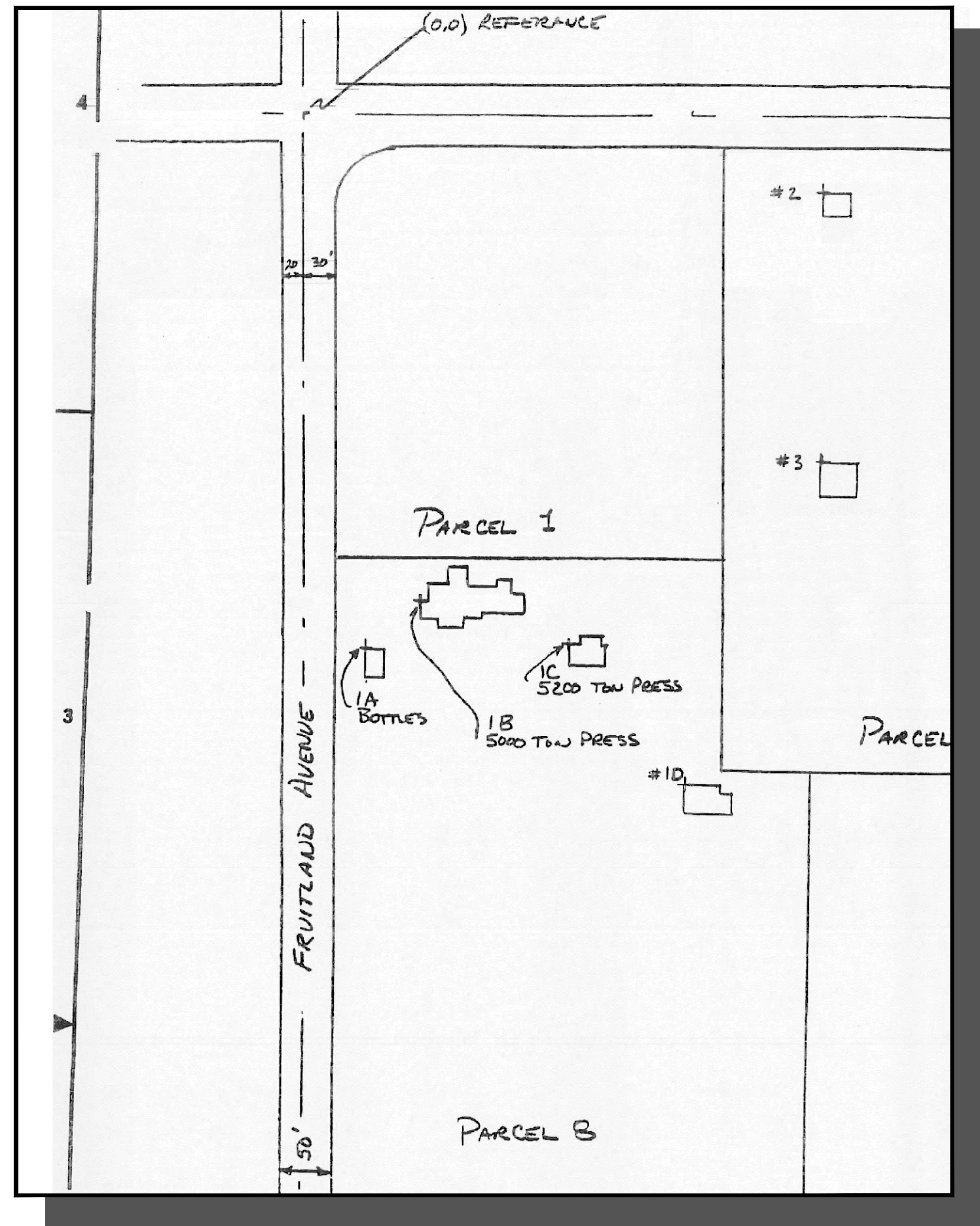
- Explanation
- Below grade structure with survey points
 - Below grade structure
 - Reference elevation benchmark
 - Site boundary
 - Phase boundary
 - Chain link fence
 - Railroad tracks (at grade)
 - Building pad and footings
 - Column and row numbering system for footings

DETAIL RECORD DRAWINGS
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: paj/rnw Date: 12/18/14 Project No. 10627.003



- Explanation
- Below grade structure with survey points
 - Below grade structure
 - Reference elevation benchmark
 - Site boundary
 - Phase boundary
 - Chain link fence
 - Railroad tracks (at grade)
 - Building pad and footings
 - Column and row numbering system for footings



Note:

Record drawings are based on prior as built records and were not verified as part of this work.

DRAWINGS NOT TO SCALE

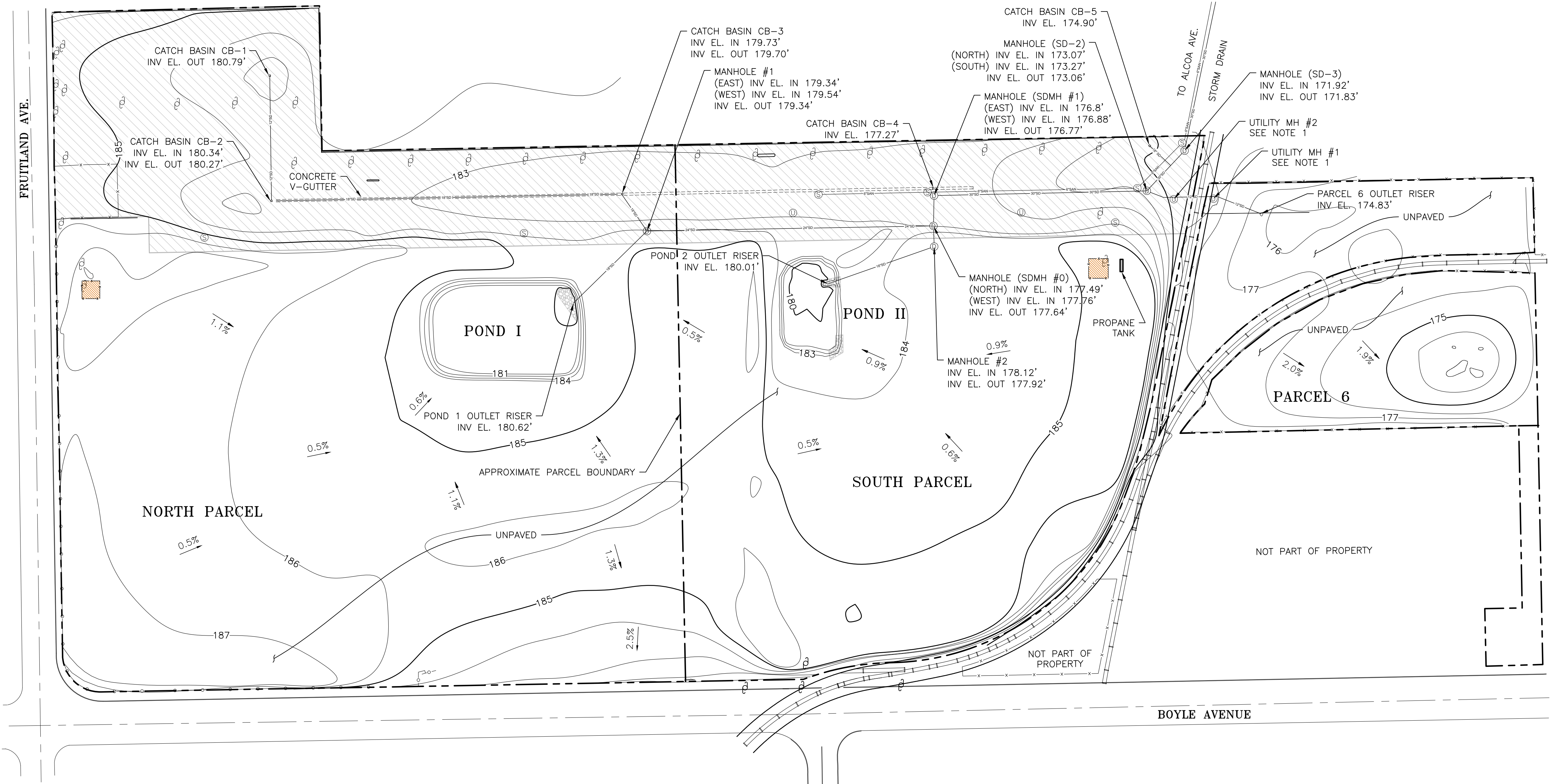
DETAIL RECORD DRAWINGS
MARCH 8, 1999
Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

By: pah/jrw Date: 12/09/14 Project No. 10627.003



Sheet 1 of 1

Plot Date: 04/10/15 - 1:34pm, Plotted by: pat.herring
Drawing Path: Y:\10627.003\03a\03a\Reports-2015\Grading\As-Built_Pond II.dwg



EXPLANATION

185 ELEVATION IN FEET ABOVE MEAN SEA LEVEL

⊙ MANHOLE DRAINAGE

⊙ MANHOLE SEWER

⊙ MANHOLE UNKNOWN

⊙ POWER POLE

—6" SAN— 6" SANITARY SEWER PIPE

—12" SD— 12" STORM DRAIN PIPE

—18" SD— 18" STORM DRAIN PIPE

—24" SD— 24" STORM DRAIN PIPE

—30" SD— 30" STORM DRAIN PIPE

--- PARCEL BOUNDARY

— MAJOR CONTOUR

— MINOR CONTOUR

— RAILROAD TRACK (AT GRADE)

—x— CHAIN LINK FENCE

SOIL VAPOR EXTRACTION TREATMENT COMPOUND

PAVED AREA

CLEAN GRAVEL

GRADE OF SLOPE

DRAINAGE SITE PLAN

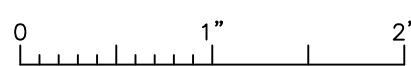
SCALE: 1" = 80'

NOTES:

1. THE STORM DRAIN BETWEEN UTILITY MH #1 AND UTILITY MH #2 CONSISTS OF A SOLID PIPE THAT IS ELEVATED ABOVE THE INVERT ELEVATION OF THE EXISTING UTILITY MANHOLES AND CONNECTING PIPE BETWEEN THE MANHOLES. THE NEW STORM DRAIN PIPE WAS ELEVATED TO FACILITATE SLOPE TO STORM DRAIN MANHOLE (SD-2). THE PIPE IS SUPPORTED AND ANCHORED BY CASING SPACERS AND SOLID CONCRETE GROUT.
2. DESIGN SITE TOPOGRAPHY WAS BASED ON SURVEY BY DULIN AND BOYNTON SURVEYORS, INC. DATED OCTOBER 12, 2011, UPDATED NOV. 17, 2011, JULY 22, 2013, AND NOVEMBER 20, 2014. BENCHMARK INFORMATION IS AS FOLLOWS: VERTICAL DATUM NAVD88, COUNTY OF LOS ANGELES BM #Y10598, 2" DISC IN WALK 4.6' N/O CF, 14.8' W/O BCR AT NE COR SLAUSON AVE AND BOYLE AVE (TO THE N) MKD (CITY OF VERNON MON), 2005 ELEV= 168.611 FEET NAVD88, HORIZONTAL DATUM NAD83, ZONE 5, NGS PID STATIONS AJ1840 AND AJ1885 EPOCH DATE 2000.35.
3. POST CONSTRUCTION SITE TOPOGRAPHY AS DELINEATED BASED ON SURVEY BY DULIN AND BOYNTON SURVEYORS, INC. DATED NOVEMBER 20, 2014 AND UPDATED MARCH 18, 2015. VERTICAL AND HORIZONTAL CONTROLS REMAIN THE SAME AS THOSE LISTED ABOVE.
4. ALL AREAS NOT PAVED WITH ASPHALT CONCRETE ARE COVERED WITH CRUSHED ROCK/CONCRETE.

THIS RECORD DOCUMENT HAS BEEN PREPARED BASED UPON INFORMATION PROVIDED BY VARIOUS SOURCES. THIS INFORMATION MAY NOT BE RELIABLE AND ITS ACCURACY AND COMPLETENESS HAVE NOT BEEN VERIFIED BY CONSULTANT. CONSULTANT IS NOT RESPONSIBLE FOR ANY ERROR OR OMISSIONS IN THESE DOCUMENTS. THESE DOCUMENTS ARE FOR GENERAL INFORMATION PURPOSES ONLY; ANY OTHER USE IS AT USER'S SOLE RISK.

CAUTION: THIS PLAN MAY BE REDUCED



ORIGINAL SCALE

REFERENCES: PLANS DATUM	NO.	REVISION	DATE	APRVD	DRAWN _____ CAS DESIGNED _____ KAF CHECKED _____ DLS REVIEWED _____ CHH	<div>amec foster wheeler</div> <div>121 Innovation Drive, Suite 200 Irvine, California 92617 (949) 642-0245</div>		BELOW GRADE DEMOLITION & SOIL EXCAVATION PECHINEY CAST PLATE, INC., FACILITY 3200 FRUITLAND, VERNON, CALIFORNIA		DATE: 04/10/2015		
	SCALE: 1" = 80'											
	SHEET: 1 OF 1 SHEETS											
								RECORD GRADING PLAN APRIL 2015		PROJ No: 10627.003		D-1